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IMPLEMENTATION OF THE TOXIC SUBSTANCES CONTROL ACT, THE PCB RULE, AND FEDERAL HAZARDOUS SUBSTANCE LAWS

CONCERNING THE PERFORMANCE
OF THE
ENVIRONMENTAL PROTECTION AGENCY
IN THE MATTER OF THE
TEXAS EASTERN GAS PIPELINE COMPANY

REPORT

FROM THE
SUBCOMMITTEE ON SUPERFUND AND
ENVIRONMENTAL OVERSIGHT
TO THE
COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

FEBRUARY 1988

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CONTENTS

Page
Letter of Transmittal V
Tabulation of Subcommittee votes VII
I. Introduction 1
II. Background 3
  A. PCBs—Their use and effects 3
  B. Statutory and regulatory background of PCBs 6
  C. PCB rule changes during compliance period of TEGPL case 7
  D. EPA and TSCA enforcement 9
  E. Texas Eastern Gas Pipeline and its compliance with the PCB rule 10
III. Subcommittee Oversight Regarding Disposal of PCB Condensates into Unlined Earthen Pits 13
  A. Newspaper account and staff briefing 13
  B. Subcommittee hearing 14
IV. Texas Eastern Transmission Corporation 17
  A. Profile 17
  B. Locations known to be contaminated in February 1987 20
  C. Compressor oil compliance agreement 21
  D. PCB-contaminated condensate remediation program 24
  E. Texas Eastern and Transwestern violations 28
  F. Disclosure of disposal pits 29
V. U.S. Environmental Protection Agency 31
  A. EPA moves to discover extent of pipeline PCB problem 31
  B. EPA requests plan for handling PCBs removed from pipelines 32
  C. Texas Eastern disclosure 34
  D. Lack of diligence in followup 35
  E. EPA staff knowledge of use of disposal pits 38
  F. Resources in support of PCB rule compliance 39
  G. Enforcement structure 40
  H. Texas Eastern enforcement 50
VI. The Agreement in Principle Between Texas Eastern and EPA for Cleanup 53
  A. The agreement generally 53
  B. Rights reserved by the United States 57
  C. Control of possible continuing discharges 58
  D. State concerns 59
VII. Impact of Cleanup and Related Costs on Rates for Natural Gas 61
VIII. Conclusions 65
IX. Recommendations 79
X. Appendix 85

LETTER OF TRANSMITTAL

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United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510-6175

February 2, 1988

The Honorable Quentin N. Burdick
Chairman
Committee on Environment and Public Works
United States Senate

The Honorable Robert T. Stafford
Ranking Minority Member
Committee on Environment and Public Works
Unites States Senate

Dear Mr. Chairman and Mr. Ranking Minority Member:

The Subcommittee on Superfund and Environmental Oversight has conducted an investigation into the performance of the Environmental Protection Agency with regard to the disposal of polychlorinated biphenyls (PCBs) into unpermitted, unlined earthen pits by the Texas Eastern Gas Pipeline Company. Following the March 17, 1987 hearing by the Subcommittee, we have continued to monitor this situation. Since that hearing, the company and the federal government have been negotiating on the terms of a settlement covering a national evaluation and cleanup of the contamination. Because the cleanup is an essential component of this situation, I initially hoped to review the final remediation plan and to analyze it in the Subcommittee report.

But despite announced plans by the involved parties to conclude the settlement discussion by the end of 1987, the final settlement agreement has not been reached to date. On November 9, 1987, however, an Agreement in Principle was reached between the United States and Texas Eastern on evaluation and remediation of the contamination. This Agreement will form the basis of the final settlement agreement.

Although further analysis of the situation may be required when the consent decree is filed, I believe sufficient information is now before the Subcommittee to allow us to report to the Committee on our conclusions and recommendations about the significant issues of the investigation.

The goals of this report have been to describe the facts, and to develop a set of conclusions and recommendations aimed at assuring proper remediation as well as prevention of such a situation in the future.

As you know, prior to finalizing the report, review and comment have been sought from all Committee Members. Having received your consent to do so, and having obtained a unanimous vote of approval from the five Subcommittee Members, on behalf of the Subcomittee, I hereby transmit the report to the Committee for publication.

Sincerely,

Frank R Lautenberg

Frank R. Lautenberg
Chairman
Subcommittee on Superfund
and Environmental Oversight

TABULATION OF SUBCOMMITTEE VOTES

On January 29, 1988 the following Subcommittee Members voted in favor of transmitting for publication to the full Committee on Environment and Public Works the Texas Eastern Report, galleys of which had been reviewed and approved pursuant to January 22, 1988 letters from the Subcommittee Chairman to the Subcommittee Members, as well as to the Chairman and Ranking Minority Members of the Committee:

Senator Lautenberg.
Senator Baucus.
Senator Mikulski.
Senator Warner.
Senator Pressler.

I. INTRODUCTION

In February 1987, the Subcommittee on Superfund and Environmental Oversight began an investigation of the U.S. Environmental Protection Agency's (EPA) implementation of its natural gas pipeline Polychlorinated Biphenyl (PCB) condensate remediation program, specifically as it applied to the Texas Eastern Transmission Corporation.

The Subcommittee based its investigation on materials provided to it by Texas Eastern, EPA, and other identified parties. The Subcommittee attempted to obtain those documents and information necessary to understand the facts and issues presented by this situation. Although the Subcommittee does not represent that it possesses all the possible materials and information potentially relevant to this matter, the Subcommittee has made a good faith effort to obtain sufficient materials, and staff have indicated to EPA and Texas Eastern an ongoing interest in and willingness to review any materials either wanted to provide the Subcommittee. In conducting the investigation, the Subcommittee was exercising its environmental oversight jurisdiction as well as its Superfund jurisdiction. Although its oversight jurisdiction may involve evaluation and conclusions related to environmental laws, the Subcommittee obviously does not view or represent itself as a forum for adjudicating civil or criminal liability.

The remediation program examined by the Subcommittee was established by EPA to reduce or, if possible, to eliminate PCB's from natural gas pipelines and to dispose of them pursuant to the PCB Rule promulgated under the Toxic Substances Control Act (TSCA).[1] The Texas Eastern Transmission Corporation (TETCO) was the parent company of two pipelines, both of which had utilized PCB compressor oils in their respective systems. One of its subsidiaries, Texas Eastern Gas Pipeline Company (Texas Eastern or TEGPL), remains part of the Texas Eastern Transmission Corporation. TEGPL's involvement with headquarters EPA has been extensive since 1981 when it was discovered that some natural gas pipelines were transmitting PCBs throughout their systems. TEGPL's pipeline system extended through sixteen states.

The other TETCO subsidiary, Transwestern Pipeline Company (TWPL) was sold in 1984. While Transwestern's dealings with EPA under the remediation program were not as extensive as TEGPL's, TWPL did play a significant, if indirect, role in the discovery of Texas Eastern's extensive disposal of PCB-laden pipeline fluids into numerous unlined earthen pits.

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[1] P.L. 94-469, 15 U.S.C. 2601.

The Subcommittee's investigation uncovered a story of a company, relevant documents of which, indicated an in-depth knowledge of the law and regulation applying to the disposal of PCBs. A company official, however, testified that discharges of PCB-contaminated condensates into unpermitted, unlined earthen pits continued through 1984. The PCB Rule, which will be explained in detail, precluded such action subsequent to May 31, 1978. It is also a story of a company which essentially claimed that the regulatory agency of jurisdiction (EPA) was aware of, and somehow acquiesced in, such a practice.

The EPA had set out to mitigate potential problems with hazardous substances, as prescribed by the rules promulgated under the Toxic Substances Control Act. However, the Subcommittee investigation uncovered a story of regulatory failure. It found an agency that failed at virtually every step to follow-up on its own initiatives. It is the story of an agency which, for lack of foresight, lack of resources and lack of an efficient and effective enforcement structure failed to observe violations in a timely way and then, having observed them, was unable to respond in a timely fashion—or even to notify its affected regional offices or affected States.

II. BACKGROUND: PCBs AND THE TEXAS EASTERN GAS PIPELINE COMPANY

A. PCBs—Their Use and Effects

1. HISTORY OF PCBS

The Toxic Substances Control Act (TSCA) was passed by the Congress in 1976. Of the hundreds of chemicals potentially regulated under TSCA, only PCBs are specifically referenced in the statute.

There exists globally, perhaps, no other contaminant known to man more ubiquitous than PCBs. They are hardy—the higher chlorinated isomers can persist in the environment for decades. PCBs are known to adhere tightly to soils. Unless the soils to which they are attached are washed or leached into surface or groundwaters, they can remain immobile for many years posing an exposure hazard to those who work, reside or play near them. In a mobile medium they may pose a danger to drinking water, to fish or in other ways become hazardous to man. Only thermal destruction at extremely high temperatures and exposure to ozone appear to be viable methods of PCB destruction. PCBs have generally entered the environment through naive and uninformed spraying (viz., DDT), or by leaks, spills, vaporization, misguided land applications and, since 1978, by illegal disposal.

Monsanto was the world's main producer of PCBs. It produced about 1.5 billion pounds of the chemicals since 1930. PCBs are no longer directly produced in the United States. However, approximately 600 million pounds are still in use in both large and small capacitors and other electrical equipment and nearly 600 million pounds are assumed to be in the ambient environment.[2]

2. USE OF PCBS

PCBs have been used by industry because of their resistance to heat and flammability. Consequently, they were widely used in electrical equipment including transformers; capacitors for air conditioners; refrigerators; televisions; flourescent light ballasts; and in brake linings. They are also virtually water insoluble and are resistant to acids, alkalies and corrosives. These properties led to PCB use in "carbonless" paper; as additives in paints, sealants and insulating tapes; as coatings for ironing board covers; as a flameproofing agent in building sealants and synthetic yarns; and, in the making of plastic bottles.[3] It becomes readily apparent from this partial list of PCB uses that in one way or another most Americans have been exposed to PCBs.

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[2] Telephone conversation with staff, Office of Pesticides and Toxic Substances, U.S. Environmental Protection Agency, Washington, D.C., November 4, 1987.

[3] Joseph H. Highland, Marcia E. Fine, et al., *Malignant Neglect*, Alfred H. Knopf, New York, 1979, pp. 58–59.

3. EFFECTS OF PCBS

Although evidence of detrimental human effects linked to PCBs was documented as early as 1936, their presence in the environment was not detected until 1966 by a Swedish scientist. Subsequently, American and other scientists confirmed the finding, as well as the prior findings of the adverse health effects of PCBs.

In February 1976, then Columbia Law School professor Abraham Sofaer, acting as the hearing officer in a milestone case against General Electric for polluting the Hudson River with PCBs from two capacitor plants, wrote:

> PCBs are toxic substances capable in sufficient quantities of causing skin lesions, destroying cells in vital body organs, adversely affecting reproduction and inducing cancer and death.[4]

Since PCBs are insoluble in water but soluble in fats, they become stored in fatty tissues of humans and wildlife. The route to humans through the food chain is of considerable concern. Much has been learned about the high levels of PCBs in the edible and inedible portions of fish, both in PCB-contaminated and in non-contaminated migratory waters. In 1970, Sports Illustrated published the results of a study of Atlantic, Pacific and Gulf Coast fish. A number of species reported on had elevated levels of PCBs, especially the Hudson River striped bass. Currently, the Food and Drug Administration's (FDA) temporary PCB tolerance level for the edible portion of fish and shellfish is five parts per million (ppm). The Fish and Wildlife Service points to PCB fish contamination beyond its recommended tolerance level (0.5 ppm) in various river systems and the coasts of the Atlantic and Pacific oceans and the Gulf of Mexico. Many of the trout and salmon of the Great Lakes that are more than a foot long also are contaminated with PCBs above acceptable tolerance limits. PCBs may reach humans through indirect routes as well. Contaminated fish used for commercial purposes may be ground and processed as meal for poultry and cattle, or as additives for paints, lubricants, or other materials. The tolerance level for the components of animal feed which are of animal origin is 2 ppm.

4. RHESUS MONKEY EXPERIMENTS [5]

A classic study in this field involved rhesus monkeys and was conducted by Dr. James R. Allen of the University of Wisconsin Medical School. For two months, six monkeys were fed 25 ppm Aroclor 1248 (a Monsanto brand: 12 carbon atoms, 48 percent chlorine by weight). The monkeys developed hair and eyelash loss, facial swelling and acne lesions within one month. One monkey died two months after ending the PCB diet.

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[4] Highland, p. 73, and In Re General Electric Company, New York State Department of Environmental Conservation, February 9, 1976.

[5] Highland, pp. 77–79.

A group of female rhesus monkeys also were tested. One group was fed a diet of 5 ppm Aroclor 1248, the other 2.5 ppm. Both groups developed acne, hair loss and a "sandpaper" skin texture. However, the 2.5 ppm group developed acne lesions at a slower rate than the 5 ppm group. When the monkeys were later bred to control males, six of the eight from the 5 ppm group became pregnant. Four of the pregnant females aborted or resorbed their fetuses, one gave birth to a still-born and one to an undersized infant. All eight of the 2.5 ppm group became pregnant. Two of them resorbed their fetuses and one aborted. Five of them gave birth to undersized infants.

The six surviving infants nursed on their mothers. Three (including the infant survivor of the 5 ppm group) died while nursing. The three survivors were hyperactive and exhibited learning difficulties.

After one year of a PCB-free diet, the surviving female rhesus monkeys which had been fed 5 and 2.5 ppm diets of PCBs, were once again bred to control males. All the resulting infants were undersized at birth. Some of the infants also were suffering from learning and behavioral problems. The research found that the infants in this group had received between 5 and 20 milligrams PCBs per kilogram of body weight in their mothers' milk.

EPA studies have indicated that detectable levels of PCBs have been found in all samples of human mother's milk it tested in 1975–1976.

In a 1978 study of sperm density, a Florida researcher recorded a median sperm count of 60 million per milliliter (ml) of fluid. This was 30 million/ml lower than a similar 1929 study. The research suggested that one quarter of the difference was due to PCBs.[6]

5. YUSHO DISEASE [7]

A 1968 Japanese case study is available to explain the toxic effects of PCBs in humans. Between 1,300 and 15,000 residents of the island of Kyushu ingested rice oil (yusho) contaminated with PCBs. A PCB mixture had leaked from a processing plant's pipe. The yusho contained between 1,000 and 3,000 ppm PCBs. The resultant disease came to be known as yusho disease. As described in *Malignant Neglect:*

> Yusho symptoms include chloracne and comedo like eruptions; dark pigmentation of the skin, nails, and mucous membrane of the eyes and mouth; cheeselike discharges from the eyes; loss of hair; loss of libido; fatigue; numbness of extremities; stomach ache; headache; nausea; dizziness and forgetfulness; menstrual disturbance; deformities of joints and bones; and poor development of teeth in children.

A number of newborn children suffered from dark pigmentation. The majority of the infants were smaller than the national average. There also were stillbirths. Examination of one stillbirth showed abnormal skin and hair development. Malignant neoplasms among yusho disease victims are considered linked to the PCB contamination.

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[6] Highland, pp. 79–80.

[7] Lewis Regenstein, *America The Poisoned,* Acropolis Books Ltd., Washington, D.C., p. 298, and New York Times, September 12, 1979, p. 43.

B. Statutory and Regulatory Background of PCBs

It was against this background that the Congress decided that PCBs, specifically, were to be regulated by section 6 of the 1976 Toxic Substances Control Act (TSCA). Other than use in a totally enclosed system, TSCA bans the manufacture, processing, distribution and use of PCBs.[8] It also requires the proper disposal of PCBs.[9] Under certain circumstances, EPA may grant exemptions to the ban, known as "use authorizations."[10]

EPA was empowered to develop regulations necessary to implement the PCB ban and disposal requirements. The first PCB rule, for marking and disposal, was promulgated in 1978.[11] It was superseded by the Final PCB Ban Rule, which became effective in July 1979.

The Environmental Defense Fund (EDF) mounted a successful legal challenge to certain aspects of the final rule which it believed were not sufficiently stringent to meet TSCA's requirements. EPA had argued that PCBs could be used in totally enclosed electrical equipment. EDF challenged that a "totally enclosed" determination was not possible because such equipment would be subject to leakage.

The U.S. Court of Appeals for the District of Columbia Circuit ruled that EPA's evidence was insufficient to support its final rule on the use and servicing of electrical equipment containing PCBs.[12] The court found that EPA's "totally enclosed" determination was too lenient. The implication of the ruling was sweeping. If it stood, it could have eliminated the use and servicing of virtually all transformers and capacitors then in use in the United States, since most of them utilized PCBs. The Court also challenged the Agency's setting of a 50 ppm threshold for the manufacture, distribution, processing and use of PCBs.[13] It found that EPA has not adequately justified that PCBs in concentrations below 50 ppm did not pose a significant threat to health or the environment and, therefore, need not be regulated.

Because the impact of the court's decision on industry was potentially devastating, EDF joined with EPA to request of the Court a stay of its mandate and additional time to revise the rule.[14] The agency then embarked on a two-phase rulemaking process. One phase addressed PCBs in electrical equipment. The other addressed the 50 ppm cutoff.

The first results of the revised rulemaking were published in 1982 when EPA issued its final rule allowing the use of PCBs in eight different types of electrical equipment.[15] In October 1982, the agency issued a final rule addressing closed and controlled waste manufacturing processes.[16] In January 1983, a final rule was published that extended and amended the use authorization for PCB railroad transformers.

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[8] 15 U.S.C. 3605.

[9] Ibid.

[10] Ibid.

[11] 40 CFR 761.40 (marking) and 40 CFR 761.60–761.75 (disposal).

[12] *Environmental Defense Fund, Inc.* v. *Environmental Protection Agency*, 636 F. 2d. 1267 (D.C. Cir. 1980)

[13] Ibid.

[14] Joint Motion CMA, EDF, et al., filed in U.S. Court of Appeals, D.C. Circuit, February 20, 1981.

C. PCB RULE CHANGES DURING COMPLIANCE PERIOD OF TEGPL CASE

There have been a number of iterations of the PCB Rule since the first version became effective on April 18, 1978. The Subcommittee was interested in determining whether or not there existed a cause and effect relationship between the increasing responsibilities imposed by the Rule revisions and the Agency's performance with regard to Texas Eastern Gas Pipeline's disposal of PCB-laden liquids into earthen pits. It is useful to look at the Rule's development by effective dates:

April 18, 1978—*Marking and disposal.*—(40 CFR 761.40 (Marking); 40 CFR 761.60–761.75 (Disposal); and as amended on May 31, 1979).

Summary: (1) Prescribes disposal and marking requirements for PCBs. For disposal, the Rule required that PCBs in concentrations above 500 ppm be disposed of only by high temperature incineration.[17] (2) PCBs in concentrations between 50–500 ppm are required to be disposed of in high efficiency boilers, *approved* chemical waste landfills, or by high temperature incineration.[18] (3) Disposal incinerators and chemical waste landfills must be approved for PCBs by the EPA Regional Administrator.[19]

July 2, 1979—*Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions.*—(40 CFR 761.1; 761.3; 761.19; 761.20; 761.30).

Summary: (1) Prohibits manufacturing of PCBs unless specifically exempted by EPA; (2) prohibits the processing, distribution in commerce, and use of PCBs in an other than totally enclosed manner; (3) authorizes certain processing, distribution in commerce, and use of PCBs in an other than totally enclosed manner; and, (4) prohibits all processing and distribution in commerce of PCBs after July 1, 1979, unless specifically exempted by EPA. (Recodified in the May 6, 1982 Federal Register).

August 25, 1982—*Use in Electrical Equipment.*—(40 CFR 761.30).

Summary: (1) Authorizes the use of PCBs in capacitors and the use and servicing of PCBs in electromagnets, circuit breakers, voltage regulators, reclosers, cable, switches other than railroad transformers; (2) provides for distribution in commerce and disposal of this electrical equipment.

October 21, 1982—*Use in, and Servicing of, Railroad Transformers.*—(40 CFR 761.1; 761.3; 761.20).

Summary: (1) Requires certain railroad transformers to meet a 60,000 ppm concentration level by July 1, 1984; (2) requires these railroad transformers to meet a 1,000 ppm concentration level by July 1, 1986; and, (3) authorizes use of PCBs for remaining useful life of transformers at concentrations below 1,000 ppm (amends May 1979 Rule to permit railroad organizations to service transformers to reduce PCB concentration, thereby reducing costs of disposal).

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[15] 40 CFR 761.3.

[16] 40 CFR 761.1; 761.3; 761.20.

[17] 40 CFR 761.60(a)(1).

[18] 40 CFR 761.60(a)(2).

[19] 40 CFR 761.70(a) and 761.75(a).

July 10, 1984—*Response to Individual and Class Petitions for Exemptions.*—(40 CFR 761.80).

Summary: Of the 109 individual and class petitions for exemption from the prohibition against the manufacture, processing, and distribution in commerce of PCBs, 58 were granted, one was partially granted, 49 were denied and one was dismissed.

October 1, 1984—*Exclusion, Exemptions and Class and Use Authorizations (Incidental Generation or the Uncontrolled Rule).*—(40 CFR 761.1; 761.20; 761.3).

Summary: Amends November 22, 1982 Rule by excluding additonal processes from regulation, based on EPA's determinations that PCBs generated in these processes do not present an unreasonable risk of injury to health or the environment; (1) defers action on 49 exemption petitions to manufacture, process, and distribute PCBs in commerce; (2) authorizes the use of PCBs in heat transfer and hydraulic systems at concentrations of less than 50 ppm; (3) *authorizes use of PCBs in compressors and in the liquid of natural gas pipelines at concentrations of less than 50 ppm.*

July 1, 1984—*Use in Microscopy and Research and Development.*—(40 CFR 761.3; 761.30).

Summary: Amends July 2, 1979 Rule (44 FR 31514) (1) authorizes indefinitely the use of PCBs for a mounting media in microscopy; (2) authorizes indefinitely the use of PCBs as immersion oils and low fluorescence microscopy; (3) authorizes indefinitely the use of PCBs as optical liquids; and (4) authorizes indefinitely the use of small quantity of PCBs for use in research and development.

December 10, 1984—*Modification of Definition of Totally Enclosed Manner for PCB Activities.*—(40 CFR 761.3).

Summary: Amends July 2, 1979 Rule (1) deletes the definition of "significant exposure"; (2) modifies the definition of "totally enclosed manner;" (3) presents the Agency's framework for assessing PCB exposure.

July 24, 1985—*PCBs in Electrical Transformers.*—(40 CFR 761.30; 761.40).

Summary: Additional restrictions on use of PCB transformers (Electrical transformers containing 500 ppm or greater PCBs). (1) Prohibits use of 480/277 volt network PCB transformers in or near commercial buildings after October 1, 1990; (2) prohibits further installation of PCB transformers in or near commercial buildings after October 1, 1985; (3) requires registration of all PCB transformers with fire response personnel and building owners by October 1, 1985; (4) requires the marking of the exterior of all PCB transformer locations by December 1, 1985; (5) requires the removal of stored combustibles located near PCB transformers by December 1, 1985; and (6) requires owners of PCB transformers involved in fire related incidents to notify immediately the National Response Center, and to take measures as soon as practicable and/or as safely as possible to contain any potential releases of PCBs or incomplete combustion products to water.

D. EPA AND TSCA ENFORCEMENT

The U.S. Environmental Protection Agency remains the implementing and enforcing authority for the Toxic Substances Control Act and the PCB Rule (as the body of PCB revisions have come to be known).

Within EPA itself, the program office charged with policy development and compliance responsibility for the PCB Rule is the Office of Pesticides and Toxic Substances (OPTS), which is headed by a presidentially-appointed and Senate-confirmed Assistant Administrator. Within OPTS, the Office of Compliance Monitoring (OCM) is responsible for uncovering violations of, and otherwise achieving compliance with, the PCB Rule (see Figure 5, p. 44).

It should be noted that OCM is staffed largely by technical personnel. Prior to June 1981, it was not a part of the program office but, rather, it was housed and it operated from within EPA's Office of Enforcement. There, both at headquarters and in the EPA regions, the technical staff and the enforcement attorneys worked together to enforce our Nation's environmental statutes. In June 1981, the Office of Enforcement was reorganized. Its technical, nonlegal experts were transferred to their respective program offices at headquarters and in the regions. The regional enforcement attorneys were transferred to the Office of Regional Counsel. At headquarters they were transferred to an Office of Legal and Enforcement Counsel (OLEC) which was established in 1982 and headed by an Associate Administrator (see Figure 6, p. 46). Later OLEC's responsibilities devolved upon the Office of General Counsel.

Under EPA's present structure, created by Administrator William Ruckelshaus in 1983, violations of the PCB Rule that may require judicial resolution involve the Office of Enforcement and Compliance Monitoring (OECM) (see Figure 7, p. 49). It is headed by another presidentially-appointed and Senate-confirmed Assistant Administrator. Unlike the program office (OPTS), which is staffed primarily by technical people, OECM is staffed primarily by attorneys. The primary responsibility of OECM, in addition to developing Agency enforcement policy, is to negotiate legal settlements or to prepare cases for referral to the Department of Justice. It may also issue administrative or civil orders to violators or enter into settlement negotiations with them.

Within OECM there are two offices whose major responsibilities could arguably cover the Texas Eastern matter. One of them, the Office of Pesticides and Toxic Substances Enforcement addresses matters under TSCA. The other, OECM's Office of Hazardous Waste Enforcement would be involved if there existed RCRA or Superfund violations.

The Office of Waste Program Enforcement (OWPE) exists within EPA's Office of Solid Waste and Emergency Response (OSWER). OWPE's relationship to OSWER is similar to OCM's relationship to its program office (OPTS). If violations of RCRA or Superfund have occurred as a consequence of Texas Eastern's disposal of PCB contaminated pipeline fluids, then OWPE would also become involved in the issue.

The differences in approach to TSCA and RCRA are worth noting. TSCA is a national, not a State, or State-delegated, program. TSCA compliance is national in that one would seek a national permit, not a State or State-delegated permit to operate TSCA-related facilities (e.g., incinerators which destroy PCBs). The Resource Conservation and Recovery Act is a State-delegable program. Treaters, storers and disposers of materials which are regulated under RCRA require RCRA permits. If the RCRA program has been delegated, the State is the permit issuing and enforcing authority. The cleanup of substances covered under RCRA requires agreement with each State where contamination exists, or with EPA where an affected State has not been delegated the RCRA program. Among the States potentially affected by Texas Eastern's actions, only Ohio and Alabama have not been delegated RCRA authority.

The Pipeline PCB Remediation Program was implemented under TSCA. Hence, it was negotiated at the national level in the Office of Compliance Monitoring. Headquarters OCM retained compliance jurisdiction over the remediation program. The EPA regions were not effectively brought in to assist and the States were not given an advisory or an operational role. In fact, until OWPE was brought into this issue in December 1986, only headquarters OCM and OECM had been involved.

EPA's regional offices, including their Toxic Substances and Hazardous Waste Divisions and the Offices of the Regional Counsel were not effectively brought into this matter until after public disclosure in February 1987.

E. TEXAS EASTERN GAS PIPELINE AND ITS COMPLIANCE WITH THE PCB RULE

Because of their heat and fire resistant properties, PCBs had been used in various lubricating oils, including compressor oils, for many years prior to the enactment in 1976 of the Toxic Substances Control Act.

Texas Eastern Gas Pipline Company and its former sister company, Transwestern Pipeline Company, were not unlike others in their industry. They first purchased compressor oils containing PCBs for use in compressors throughout their pipeline in the 1950s. Their compressor oils were manufactured by Monsanto, which was the world's largest producer of PCBs. Monsanto began PCB manufacture in 1930. Compressor oils containing PCBs are no longer manufactured in the United States.

1. CONSENT DECREE ADDRESSES COMPRESSOR OIL PROBLEM

Once the PCB Rule went into effect in 1978 and 1979, TEGPL responded. It broke down its compressors. It wiped down and cleaned the various compressor parts and it apparently began to use compressor oils that did not contain PCBs. Nevertheless, TEGPL found that over time, the levels of PCBs in its compressor waste oils continued to rise above the regulatory threshold limit of 50 ppm.

As the PCB levels continued to rise above 50 ppm, the company reports[20] that it broke down and cleaned its compressors a number of times. The Environmental Protection Agency was apparently satisfied that Texas Eastern and Transwestern were taking the initiative and being good citizens.[21] The agency remained concerned, though, that the PCB levels continued to exceed the threshold level over time. EPA could not avoid enforcement against the company in spite of Texas Eastern's and Transwestern's attempts to remedy the problem. Through negotiations, an agreement was reached between the companies and EPA for a program to address the situation and maintain the PCB levels in compressor waste oils below 50 ppm.

A consent agreement between EPA and the Texas Eastern Transmission Corporation addressing the level of PCBs in the company's turbine compressors was entered into on August 3, 1982.[22] Texas Eastern Transmission Corporation was assessed a civil penalty for TSCA violations of $159,800.[23] That penalty, however, was remitted because of TEGPL's good faith efforts to comply with the Rule; because of its cooperation with EPA; and because it voluntarily agreed to a remedial program by which it would address the problem.[24] The goal of the agreement was compliance with the PCB Rule—PCB compressor levels below 50 ppm within 18 months (by February 3, 1984). The consent agreement, it should be noted, covered both Texas Eastern Gas Pipeline Company and Transwestern Pipeline Company and was signed by George H. Ewing, Senior Vice President, Texas Eastern Transmission Corporation.

2. CONDENSATE CONTAMINATION AND THE REMEDIATION PROGRAM

In 1981, a Long Island Lighting Company (LILCO) residential gas meter burst spewing a liquid over a customer's basement floor. An insurance adjuster sent a sample of the liquid to an analytical laboratory. It contained PCBs.

With the cooperation and assistance of the natural gas pipeline trade association, Interstate Natural Gas Association of America (INGAA) and its member companies, EPA determined the source of the PCBs. As a consequence of the industry's prior use of PCB-containing compressor oils, some of the PCBs had escaped beyond compressor seals. They were picked up in the compressed gas and with changes in temperature, concentrated in the pipeline condensate.

Texas Eastern Gas Pipeline Company was one of several whose pipeline condensates were contaminated with PCBs. Along with INGAA and other companies, TEGPL cooperated with EPA and established a PCB-condensate remediation program in 1982.[25]

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[20] Letter from F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company, to John Seitz, EPA, February 26, 1981, p. 1. See Appendix at Exhibit O.

[21] Letter from A.E. Conroy, Director, Pesticides and Toxic Substances Enforcement Division, U.S. EPA, to F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company, April 26, 1982. See Appendix at Exhibit P.

[22] Consent Order and Agreement, TSCA Docket 82-H-01, August 3, 1982. See Appendix at Exhibit Q.

[23] Consent Order, p. 5.

[24] Consent Agreement, pp. 2-3.

[25] Letter from F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company to John Seitz, Chief, Pesticides and Toxic Substances Enforcement Division, U.S. EPA, August 20, 1981,

Continued

TEGPL screened its pipe at one of its sources, on the Gulf Coast of Louisiana, to reduce the amount of liquids entering the system. The liquids travel from the source, up the pipeline system by a series of compressors, spaced at various points along the pipeline. Compressors are used in natural gas pipeline systems to push gas through the pipeline from its supply areas (Texas and Louisiana).

In addition, the company continued and expanded the number of "pig runs"—a practice of running a device within the pipeline, from compressor station to compressor station, up the line, to force out liquids and foreign substances. TEGPL also reports that, as it could, it installed diffusers and storage tanks to safely remove condensate and foreign matter from the system. It explained that in the absence of the diffusers condensate could only be released at high pressure. The purpose of the diffusers was to step down that pressure.

TEGPL, as part of its responsibility under the remediation program, agreed to sample its condensate at specified locations. It also was to make quarterly reports to EPA. Pursuant to paragraph 5 of the August 3, 1982, consent agreement signed by EPA and the company, TEGPL was responsible for the proper marking and disposal of the PCB-laden condensate in accordance with the PCB Rule.

(see Appendix at Exhibit R), and letter from A.E. Conroy to Cohagan, Director, Pesticides and Toxic Substances Enforcement Division, U.S. EPA, November 9, 1981. See Appendix at Exhibit S.

III. SUBCOMMITTEE OVERSIGHT REGARDING DISPOSAL OF PCB CONDENSATES INTO UNLINED EARTHEN PITS

A. Newspaper Account and Staff Briefing

On February 21, 1987, [25a] there appeared in a newspaper account a report of inaction on the part of the U.S. Environmental Protection Agency in the face of possible illegal and massive disposal of polychlorinated biphenyls (PCBs) over as many as 16 States by the Texas Eastern Transmission Corporation. On February 25, 1987, representatives of Texas Eastern made a presentation to staff of the Committee on Environment and Public Works.

The issue of immediate concern involved the removal of natural gas pipeline condensates from the Texas Eastern system. These condensates were contaminated with PCBs. The pipeline condensate came to be contaminated as a consequence of previous use of compressor oils containing PCBs. Much of the condensate was placed into unlined earthen "scrubber" pits located at compressor stations along TEGPL's system.

At their February 25 meeting with the Committee staff, company officials stated that diffuser and storage tanks had been phased into the pipeline system in order to safely remove the contaminated condensates. Absent diffusers and storage tanks at any removal point, the condensate was blown down into the "scrubber pits"—the practice of which, within the industry, was described to the Committee staff as "traditional." Responding to the Committee staff's questions, Texas Eastern officials represented that the EPA headquarters staff who had established and monitored the PCB-contaminated condensate remediation program were aware of the existence of the "scrubber" pits and of their traditional use.

When EPA representatives met with the Committee staff on February 26, 1987, they provided a briefing and described expected future actions. The Committee staff was informed that EPA would activate Superfund's section 104 which authorizes Federal investigations, monitoring, surveys, testing, and other information gathering and if necessary, respond to the threat, or the actual release of hazardous substances to the environment.[26] The agency said that it would go into the field using that Superfund authority and conduct Preliminary Assessments and Site Investigations (PASIs) to determine, independently, the nature and extent of the PCBs or other toxic substance contamination created by the disposal practices of the Texas Eastern Gas Pipeline Company. During the course of this meeting, EPA representatives declared inaccurate an agency press release issued two days earlier. That release promised results in one week's time. These same EPA officials also denied Texas Eastern's assertion that EPA was aware of the existence of the "scrubber" pits or that they were traditionally used in the industry for the disposal of waste oils and condensate.

[25a] Washington Post, February 21, 1987 at p.1.

[26] The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (P.L. 96-510), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) (P.L. 99-499).

B. SUBCOMMITTEE HEARING [27]

On March 17, 1987, the Subcommittee on Superfund and Environmental Oversight, exercising its environmental oversight and its Superfund jurisdiction held a hearing in Washington, D.C., concerning the disposal of PCB-laden pipeline condensates into unlined, earthen pits. The Subcommittee was concerned that violations of the Toxic Substances Control Act, the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Emergency Response, Compensation and Liability Act (CERCLA or Superfund) may have occurred. In addition, EPA had reported on March 11, 1987, that five residential drinking water wells in West Amwell, New Jersey, were contaminated with PCBs. Their source was presumed to be the Texas Eastern Gas Pipeline Company's West Amwell compressor station. There was a concern that the West Amwell and the national situation be addressed with all deliberate speed.[28]

In addition to providing sworn testimony to the Subcommittee on March 17, 1987,[29] company officials provided the Subcommittee with correspondence between Texas Eastern and EPA during the period 1981–1986. The company also provided extensive backup material along with its formal testimony.[30] Corporate officials and legal counsel were made available to the Subcommittee for discussions and interviews. Documents obtained from the U.S. Environmental Protection Agency and interviews with its staff shed additional light on Texas Eastern's role.[31] At the request of the Subcommittee, the Interstate Natural Gas Pipeline Association of America (INGAA) provided a sworn, written statement.[32]

By March 17, the Subcommittee had narrowed the focus of its inquiry with regard to Texas Eastern. It wanted to know which sites around the Nation, in addition to West Amwell, were contaminated. There was a concern that Texas Eastern's consultant had taken nearly 18 months to produce broad-based data.

In the face of a February 1987 newspaper account and Congressional interest, EPA, in cooperation with some States, finally began independently to collect data. The Subcommittee wished to see results of those data collection efforts in a timely fashion.

That the company had disposed of PCB-laden pipeline condensates into unlined, earthen pits was not in question. Texas Eastern representatives, in the February 25, 1987 meeting with the Committee staff, openly admitted to having done so.

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[27] Hearing on Disposal of PCB Contaminated Liquids by the Texas Eastern Gas Pipeline Company before the Subcommittee on Superfund and Environmental Oversight, Committee on Environment and Public Works, U.S. Senate, 100th Congress, 1st Session. (Hearings.)

[28] Statement of Senator Lautenberg, Hearings, pp. 1–3.

[29] Ibid. at 13–39.

[30] Files, U.S. Senate Committee on Environment and Public Works.

[31] Ibid.

[32] Hearings, pp. 188–274.

But having made that admission, the committee staff was also informed by Texas Eastern respresentatives that EPA's staff was aware of the existence of the earthen pits. The company maintained that the EPA TSCA compliance staff, with whom it negotiated a PCB-condensate remediation program, was aware of the pipeline industry's traditional use of "scrubber" pits into which liquid pipeline waste were placed. The company's contention was that the agency, aware that TEGPL was phasing in equipment that would draw off pipeline condensate into tanks, understood that TEGPL would continue to dispose of the contaminated liquids into pits until installation was complete.

On its face, this information was startling. The PCB Rule for disposal has been in effect since 1978. Disposal into unpermitted, unlined pits subsequent to the Rule's effective date would be a violation of TSCA and the Rule itself. That EPA staff who are charged with overseeing TSCA compliance would allow this to occur had far reaching implications. Texas Eastern was asked at the February 25 meeting to provide the Subcommittee with evidence to substantiate this assertion.

The Subcommittee also wished to determine whether Texas Eastern was knowledgeable with regard to the handling and disposal of PCBs. Did the company understand how to comply with TSCA and the PCB Rule? Though ignorance would not have removed culpability for any violations that may have occurred, it could at least provide some explanation as to why they may have occurred.

IV. TEXAS EASTERN TRANSMISSION CORPORATION

This section looks at Texas Eastern Transmission Corporation's subsidiaries, Texas Eastern Gas Pipeline Company and Transwestern Pipeline Company, as they participated in the pipeline PCB remediation effort and as they were affected by it. The Corporation is profiled and its relationship with EPA, from its own perspective is explored.

A. PROFILE

The Texas Eastern Transmission Corporation is in the business of providing Gulf Coast natural gas in interstate commerce to local gas companies along its system. Texas Eastern Gas Pipeline Company is a division of Texas Eastern Transmission Corporation. TEGPL operates approximately 10,000 miles of gas transmission pipelines and 70 compressor stations in 16 States in the eastern United States. (See Map, Figure 1.) Those States are: Louisiana, Texas, Arkansas, Mississippi, Tennessee, Alabama, Missouri, Illinois, Kentucky, Indiana, Ohio, Maryland, West Virginia, Pennsylvania, New Jersey and New York. Until 1984, when it was sold, Transwestern Pipeline Company was also a division of Texas Eastern Transmission Corporation. It operated in Texas, New Mexico and Arizona. (See Figure 2.) Of particular interest to the subcommittee was a Transwestern operation in Arizona. Both Texas Eastern Gas Pipeline Company and Transwestern had used Turbinol 153 in their compressors. Turbinol 153 is a Monsanto produced compressor lubricating oil containing PCBs.

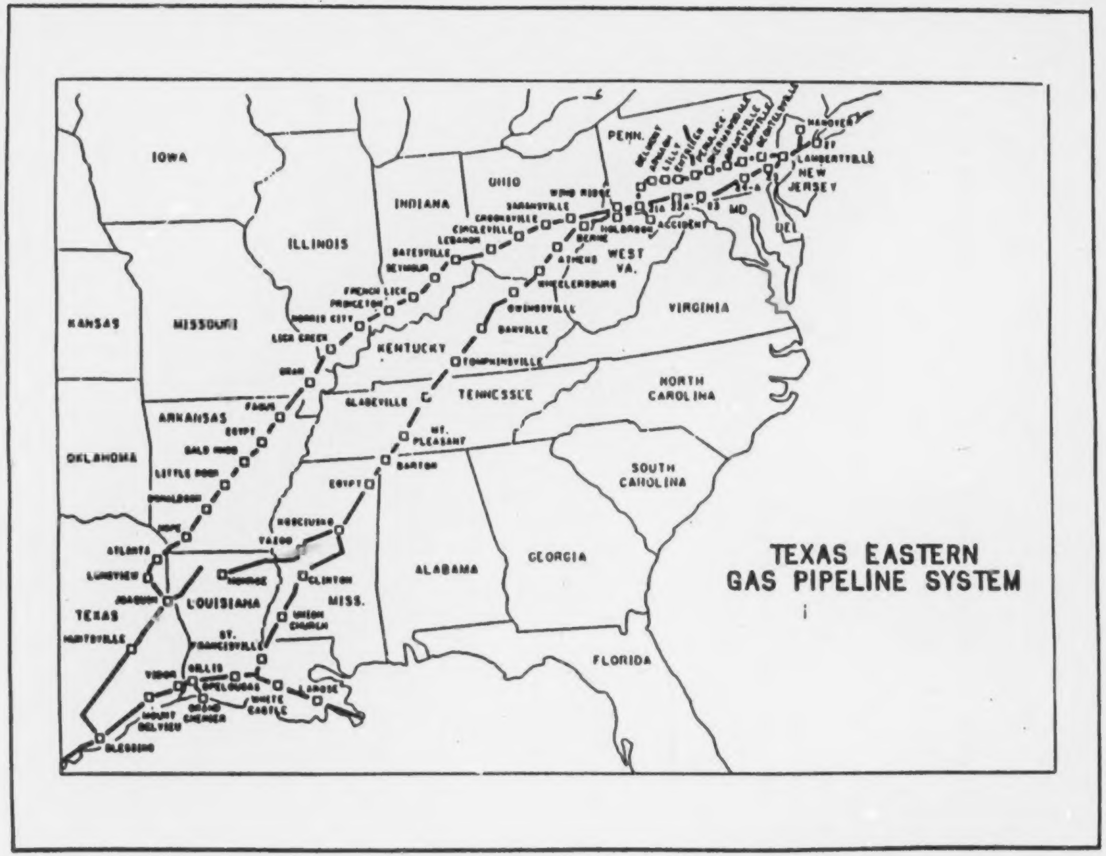
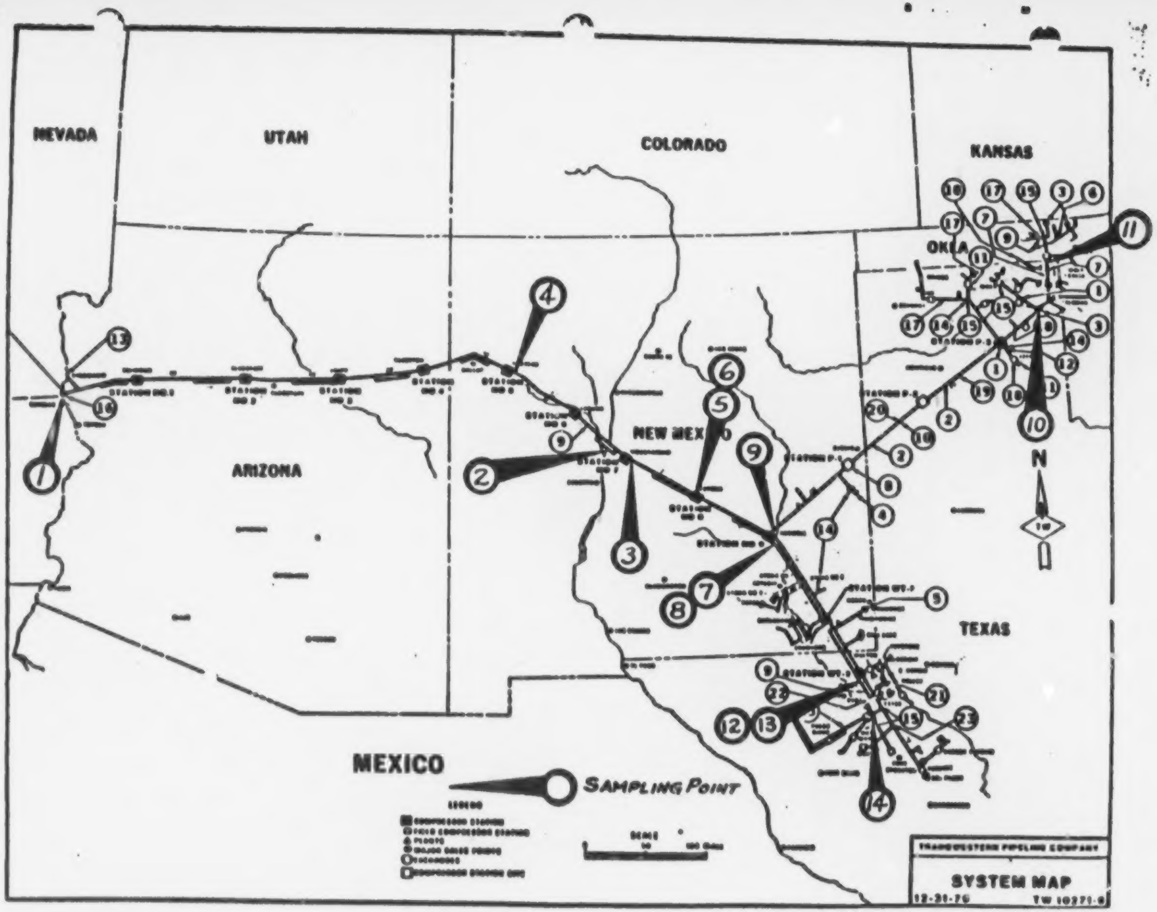

TEXAS EASTERN
GAS PIPELINE SYSTEM
IOWA
ILLINOIS
INDIANA
OHIO
PENN.
NEW JERSEY
DEL.
MD
WEST VA.
VIRGINIA
KANSAS
MISSOURI
KENTUCKY
TENNESSEE
NORTH CAROLINA
SOUTH CAROLINA
OKLAHOMA
ARKANSAS
TEXAS
LOUISIANA
MISS.
ALABAMA
GEORGIA
FLORIDA
LAMBERTVILLE
HANOVER
ACCIDENT
HOLBROOK
WIND RIDGE
BERNE
ATHENS
WHEELERSBURG
OWINGSVILLE
DANVILLE
TOMPKINSVILLE
GLADEVILLE
MT. PLEASANT
BARTON
EGYPT
KOSCIUSKO
YAZOO
CLINTON
UNION CHURCH
ST. FRANCISVILLE
WHITE CASTLE
LAROSE
OPELOUSAS
GILLIS
VIDOR
GRAND CHENIER
MOUNT BELVIEU
BLESSING
HUNTSVILLE
JOAQUIN
LONGVIEW
MONROE
ATLANTA
HOPE
DONALDSON
LITTLE ROCK
BALD KNOB
EGYPT
FAGAN
GRAM
LICK CREEK
NORRIS CITY
PRINCETON
FRENCH LICK
SEYMOUR
BATESVILLE
LEBANON
CIRCLEVILLE
CROOKSVILLE
BARNESVILLE
LILLY
BEDFORD

Figure 1.
(Source: Texas Eastern Gas
Pipeline Company)


NEVADA
UTAH
COLORADO
KANSAS
OKLA
ARIZONA
NEW MEXICO
TEXAS
MEXICO
SAMPLING POINT
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TRANSWESTERN PIPELINE COMPANY
SYSTEM MAP

Figure 2
(Source: Texas Eastern Gas Pipeline Co.

Texas Eastern Corporation, the parent company of Texas Eastern Transmission Corporation, reported its 1986 total assets at about $5.249 billion.[33] In that year the parent corporation reported total operating revenues of about $4.074 billion.[34]

The subsidiary involved with natural gas pipelines, Texas Eastern Transmission Corporation, reported 1986 assets of about $4.151 billion.[35] Its reported total operating revenues for 1986 were about $3.244 billion and its total operating profit was $322 million.[36] Its operating profit attributable to natural gas pipelines in 1986 was $218 million.[37] Its net income after taxes and preferred dividend of stocks of subsidiaries was about $152 million.[38] Its net income applicable to common stock was about $144 million.[39]

B. Locations Known To Be Contaminated in February 1987

Texas Eastern provided to EPA and to the Subcommittee, in February 1987, a preliminary list of its station sites with PCB contaminated pits. Those station sites and their levels of PCB contamination above 50 ppm are:

MAXIMUM DETECTED CONCENTRATION IN PITS

Station	County	State	PPM/PCB
Atlanta	Cass	Texas	230
Joaquin	Shelby	do	9,300
LaRose	LaFourche	Louisiana	58
St. Francisville	West Feliciana	do	3,600
Hope	Nevada	Arkansas	142
Barton	Colbert	Alabama	450
Gladeville	Wilson	Tennessee	1,800
Owingsville	Bath	Kentucky	1,100
Tomkinsville	Monroe	Mississippi	1,500
Egypt	do	do	1,500
Clinton	Hinds	do	570
Kosciusko	Attala	do	3,200
Union Church	Jefferson	do	1,900
Yazoo City	Yazoo	do	4,600
Athens	Athens	Ohio	3,400
Berne	Monroe	do	1,400
Wheelersberg	Scioto	do	1,200
Wind Ridge	Greene	Pennsylvania	950
Conwellsville	Fayette	do	310
Marietta	Lancaster	do	617
Armagh	Indiana	do	2,000
Bechtelsville	Berks	do	4,400
Delmont	Westmoreland	do	1,800
Grantville	Dauphin	do	4,200
Lilly	Combria	do	2,500
Perulak	Juniata	do	15,000
Shermans Dale	Perry	do	9,000
Lambertville [40]	Hunterdon	New Jersey	4,200

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[33] Texas Eastern Corporation 1986 Annual Report at 27–8.

[34] Ibid.

[35] Texas Eastern Transmission Corporation 1986 Annual Report at 3–4.

[36] Ibid. at table preceding page 1 and at page 3.

[37] Ibid. at table preceding page 1.

[38] Ibid. at 3.

[39] Ibid.

[40] Though this site is referred to by Texas Eastern as Lambertville, the contamination is within the boundaries of the township of West Amwell.

C. COMPRESSOR OIL COMPLIANCE AGREEMENT

In 1958, Texas Eastern and Transwestern began using Turbinol 153, a PCB lubricating oil produced by Monsanto for its fire retardant properties. They reported that by 1970, Turbinol 153 was used in 24 pipeline compressors at 19 locations in eight States. In 1972, Monsanto ceased production of PCBs except for those to be used in closed systems. Monsanto informed Texas Eastern that Turbinol 153 would no longer be available subsequent to June 30, 1972, for use in TEGPL's compressors. In his letter to Senator Quentin Burdick, Chairman of the Committee on Environment and Public Works, Howard C. Homeyer, President of Texas Eastern Gas Pipeline Company said, "When TEGPL discovered th[at] PCBs tend to persist in the environment, TEGPL began phasing out its use of PCB lubricating oil and completely eliminated its use of the oil by 1977." [41]

In April 1972, Texas Eastern began to phase out its use of the PCB lubricating oil. The company reported draining, flushing out and replacing with non-PCB lubricating oil three units in 1972; five units in 1973; three units in 1975; six units in 1976; and seven units in 1977. It should be noted that Texas Eastern reported to EPA that as it drained its compressors of Turbinol 153, the lubricating oil was retained for make-up oil in those other units that continued to use the Monsanto product.[42] Nevertheless, in Mr. Homeyer's letter to Chairman Burdick, he said, "At all times, turbine oil drained from the compressors was carefully collected in drums, manifested and trucked to authorized disposal facilities and incinerated." [43]

However, because of the residuals remaining in the compressor units, PCB levels periodically rose above the 50 ppm level. Consequently, Texas Eastern had to drain and change out some of the compressors four and five times. Through February 1981, Texas Eastern reported having spent approximately $3,000,000 to reduce PCB concentrations in its compressors.

On May 15, 1981,[44] the agency informed Texas Eastern Gas Pipeline that as a result of an industry survey, data indicated a level of PCBs in both the company's condensate and waste oils above 50 ppm. EPA requested further information from TEGPL, including "steps taken by Texas Eastern to comply with the PCB ban rule (i,e., description of testing, draining procedures etc.)", and "steps taken to bring PCB concentration below 50 ppm prior to May 1, 1980, (include method of marking, storage, and disposal of any PCB contaminated oils)."

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[41] Letter from Howard C. Homeyer, President, Texas Eastern Gas Pipeline Company to Quentin N. Burdick, Chairman, Senate Committee on Environment and Public Works, February 23, 1987, p. 2. See Appendix at Exhibit T.

[42] Letter from F. L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company, to John Seitz, Environmental Protection Agency, Washington, D.C., February 26, 1981, p. 1. See Appendix at Exhibit O.

[43] Letter from Homeyer, supra n. 41, at 2. See Appendix at Exhibit T.

[44] Letter from A. E. Conroy, Director, Pesticides and Toxic Substances Enforcement Division, U.S. EPA, to F. L. Cohagan, Vice President, Texas Eastern Transmission Corporation, May 15, 1981, p. 1. See Appendix at Exhibit U.

Texas Eastern's June 12, 1981, answer to the May 15 EPA request, displayed knowledge of how to comply with the PCB Rule. It stated:

> Effective April 18, 1978, EPA prohibited the disposal of liquids with 500 ppm or more of PCB contamination by any means other than incineration in an EPA approved incinerator. No incinerators were approved by EPA until March 1981. This created a disposal problem that Texas Eastern solved by constructing storage buildings to store a total of 1,500 drums (55 gal/ea). These buildings meet EPA specifications for the storage of PCB liquids.[45]
>
> The April 18, 1978, regulation did not prohibit the disposal of liquids with less than 500 ppm PCB contamination or solid PCBs of any concentration.[46]

[TEGPL reported incinerating PCB contaminated lubricant whose levels were above 500 ppm; landfilling those with less than 500 ppm.] [47]

> Effective July 2, 1979, EPA applied PCB regulations to all liquids with 50 ppm PCB contamination. Liquids with 500 ppm contamination could still be disposed of by incineration and liquids with 50–500 ppm contamination could still be landfilled.[48]

In a series of attachments to its June 12 response, TEGPL provided EPA with its proposal for complying with the PCB Rule. The company provided to EPA documents that exhibit in some detail knowledge of how, and ability to comply with the Rule. "After cooldown, pump the lubricant from the lube oil tank into 55 gallon drums (18 gauge, 2 bung). These drums do not have to be clean. Affix an EPA warning label to each drum and mark each drum: * * *" And: "* * * Put the filter cartridges in 55 gallon drums for shipment to inceneration plant." [49]

Another attachment lists items of personal protection such as: organic vapor respirator; coverall with elastic wrist and ankle; PVC heavy duty clothes; and an over the shoe boot. It was updated on January 29, 1981,[50] to include goggles on the list of protective clothing and equipment. The update adds a section on "Safe Practices." It states:

> Cloth rags should be used to soak up distillate from nonpourous surfaces including scrapers if they are to be transported from the immediate job site. Used rags should be placed in fiber drums for storage. If the distillate soaks into soil around the job site, the contaminated soil should be scooped and placed in fiber drums.

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[45] Letter from F. L. Cohagan to A. E. Conroy, Attachment entitled, "Response to EPA Request for PCB Related Data on Systems," June 3, 1981 (revised June 12 1981), p. 3. See Appendix at Exhibit V.

[46] Ibid.

[47] Ibid., Attachment No. 2, p. 1.

[48] Letter from F. L. Cohagan to A.E. Conroy, Attachment, supra, June 3, 1981 (Revised June 12, 1981), p. 3.

[49] Ibid., Attachment No. 3.

[50] Ibid., Attachment No. 4.

Texas Eastern documents also demonstrated knowledge of how to store PCBs. For large quantities, an attached memo, written out of the risk management/safety division states, in part:

> Storage of containers (not more than 60 gallons each) shall not exceed 1,100 gallons in one area. Areas shall be separated by a 5-foot clearance. Areas of storage shall not be nearer than 20 feet to a building.[51]

Also:

> Leaking containers shall have the contents transferred to an undamaged container. The leaking container should be retained in the storage area for proper disposal of containers that have been used for storage of PCBs.[52]

And:

> Materials containing PCBs when heated to decomposition emit highly toxic fumes. Extinguishment of these materials should not be attempted without the use of self-contained breathing equipment.[53]

[The burning of PCBs may produce dioxins and dibenzofurans.]

With regard to small quantities, the memo states, in part:

> No more than 25 gallons of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet. Quantities of flammable and combustible liquid in excess of 25 gallons shall be stored in an acceptable or approved cabinet. No more than 60 gallons of flammable or combustible liquids shall be stored in any one storage cabinet. Not more than three such cabinets may be located in a single storage area.[54]

Because some of TEGPL's compressors contained in excess of the 50 ppm level of PCBs and were therefore in violation of 40 CFR 761.20(a), and TSCA section 15(1)(C), the agency considered its options. On April 26, 1982, EPA's then Pesticides and Toxic Substances Enforcement Division wrote to Texas Eastern that the EPA wished to formalize a compliance agreement with TEGPL to bring its turbine compressors into compliance with the PCB Rule. EPA made recognition of Texas Eastern's efforts:

> Based on your good faith efforts to comply with the PCB Rule, the amount of money expended during this program both before and after May 1, 1980, and your company's extensive participation in the EPA/natural gas industry cooperative sampling and remedial measures programs, the agency has used its discretion in not applying any enforcement remedies for these violations. This approach is in keeping with our cooperative effort to remedy PCB contamination of gas lines and the intent of Congress for the administration of TSCA as stated in Section 2(C). * * * The compliance agreement * * * would include monitor-

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[51] Ibid., p. 1.

[52] Ibid., p. 2.

[53] Ibid.

[54] Ibid., p. 3.

ing, decontamination measures, and timeframes for these activities and for final compliance.[55]

D. PCB-CONTAMINATED CONDENSATE REMEDIATION PROGRAM

Concerned that PCBs had volatized in the natural gas pipeline and were entering homes and businesses, EPA searched for their source. Except in New York and Ohio, where State and local authorities performed the work, EPA and its contractors conducted sampling. The Interstate Natural Gas Association of America and a number of its member companies, including Texas Eastern, assisted in this effort. No PCBs were found to be entering residences or business establishments.

Rather, PCBs were found in pipeline liquids. These liquids, composed of hydrocarbon distillates and condensates enter the pipeline at its source, along with the gas stream. They collect at low pressure points within the system. PCBs which had gotten past compressor seals when Turbinol 153 lubricating oil had been used, dissolved in the pipeline liquids. Some of the liquids volatized and recondensed at other points within the system. The PCBs apparently then become concentrated in the remaining liquids. (See Figure 3.)

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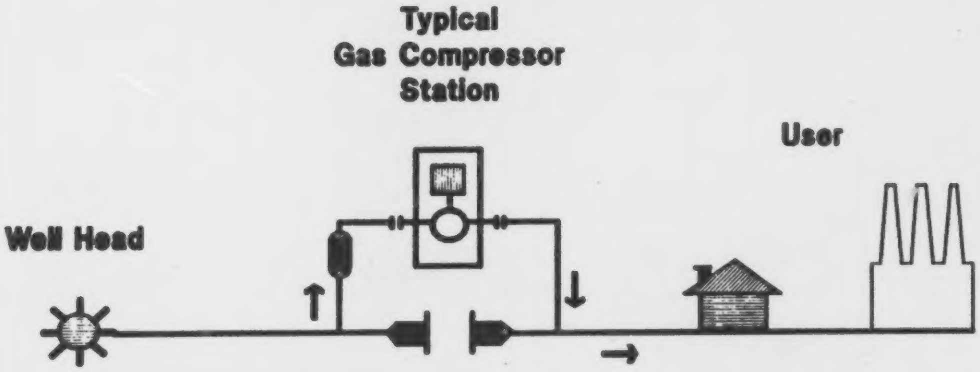
[55] Letter from A.E. Conroy, Director, Pesticides and Toxic Substances Enforcement Division, U.S. EPA, Washington, DC to F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company, April 26, 1982, pp. 1-2.

Gas Pipeline System Schematic



As the gas flows through the pipeline, friction causes a pressure reduction and the compressors boost the pressure to move the gas through the pipeline. This pressure reduction, as well as changes in elevation and temperature, may cause liquids to condense in the pipeline and be moved along with the gas flow. Gas scrubbers are located upstream of compressors to remove these liquids prior to compression.

11/87

Figure 3.
(Source: Texas Eastern Transmission Corporation)

On May 27, 1981, TEGPL was advised by EPA that as a result of the sampling program, it was among the twelve companies whose PCB level was above 50 ppm.[56] Texas Eastern was informed that EPA was establishing a remediation program to reduce the level of PCBs in pipeline systems. A four-step program was outlined: insure that any PCBs removed were handled properly; provide EPA with information on ways to prevent movement of PCBs into other systems; implementation, by TEGPL, of the best option to prevent PCB migration into other systems; and provide EPA with information on the methods by which to remove any remaining PCBs from Texas Eastern's system. Among those items specifically requested from TEGPL by EPA were:

> A description of the measures being taken to protect workers handling any items coming in contact with PCBs; and
>
> Procedures [TEGPL] will follow for handling, marking, storing, and disposing of the PCBs in accordance with TSCA and the applicable Department of Transportation regulations.[57]

Texas Eastern responded to EPA's request for pipeline condensate information and the agency's stated desire to establish a PCB-condensate remediation program.[58] In addition to proposing its own remediation plan, TEGPL's reference to its June 12, 1981, compressor oil compliance agreement response to EPA, established again a knowledge of how to protect company workers from PCBs. This also established again a knowledge of how to handle, mark, store, transport, and dispose of PCBs (see above).

Texas Eastern's proposed PCB-condensate remediation plan, which was designed to prevent migration of PCBs to other systems, and to eliminate them from the TEGPL and Transwestern systems consisted of three principal elements. They were:

> 1. Filter/separators at a minimum of four Texas Eastern and one Transwestern location. [Gas passes through the filters, causing small droplets to congregate; the separator then removes the droplets.]
>
> 2. Dehydration equipment at Grand Chenier, Louisiana to minimize the spread of PCBs by reducing the quality of liquids entering the system which provide a transportation medium for PCBs.
>
> 3. Pipeline scraper runs, known as "on-stream pigging" which would force the PCB-contaminated condensate to drain points for their removal.

The four locations at which TEGPL proposed to install filter/separators on its system were: Joaquin, Texas; Berne, Ohio; Lebanon, Ohio; and Lambertville (West Amwell), New Jersey. The Transwestern filter/separator would be located at Needles, Arizona.

In a letter dated October 14, 1981, subsequent to a meeting with EPA and Federal Energy Regulatory Commission (FERC) staff, F.L. Cohagan, Texas Eastern's vice president and its principal negotiator with EPA, wrote to EPA to justify TEGPL's proposal to install dehydrating equipment at Grand Chenier.

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[56] Letter from A.E. Conroy, Director, Pesticides and Toxic Substances Enforcement Division, U.S. EPA to F.L. Cohagan, Vice President, Texas Eastern Transmission Corporation, May 27, 1981. See Appendix at Exhibit W.

[57] Ibid., p. 2.

[58] Letter from F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company to John Seitz, Chief, Compliance Monitoring Branch, Pesticides and Toxic Substances Enforcement Division, U.S. EPA, August 20, 1981, p. 9. See Appendix at Exhibit R.

> We feel that the dehydrator is an essential element in our overall program which will contribute significantly to the effectiveness and success of the program. * * * Although Texas Eastern operates a high pressure relatively warm gas transmission operation * * * we do accumulate and remove free water, oily water and liquid hydrocarbons most of which contain PCBs at scrubber locations, strainers, pig traps, drips, valve bodies and other liquid removal points. Actual liquids removed from the contaminated portion of the Texas Eastern system for the 12-month period of July 1980 through June 1981, was 129,719 gallons.[59]

Mr. Cohagan went on to explain that Texas Eastern has three main sources of gas. Two of them were characterized as "dry," though at one of them (Texas/Mexico) water content could reach as high as five to six pounds per million cubic feet of gas. The third, from the offshore Louisiana Cameron field, was high in water content. It was to reduce these incoming liquids that TEGPL proposed to place dehydration equipment at Grand Chenier. Mr. Cohagan continued:

> We believe the removal of water at the south end of the system will reduce the water that must be removed in conjunction with other liquids up the line. The liquids containing PCBs including the water removed at these points must then be hauled considerable distances to approved disposal areas. * * * In addition to water removal along the Texas Eastern system, condensed water occurs in our customers' systems downstream of pressure regulators. Water, together with liquid hydrocarbons, are normally removed downstream from the pressure reduction valve by means of drips. *If these liquids contain PCBs, the liquids must be disposed of by approved means.*[60] (Emphasis added.)

EPA responded in writing to TEGPL's proposed PCB-condensate remediation plan. It agreed to the company's proposal regarding the filter separators and pig runs. A.E. Conroy II, Director of EPA's then Pesticides and Toxic Substances Enforcement Division wrote,

> We feel that the installation of filter/separators in conjunction with the systematic pigging and draining of the pipeline system is an excellent approach for removing liquids contaminated with PCBs and for preventing possible movement of PCBs to other systems.[61]

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[59] Letter from F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company, to John Seitz, Chief, Compliance Monitoring Branch, Pesticides and Toxic Substances Enforcement Division, U.S. EPA, October 14, 1981, p. 1. See Appendix at Exhibit X.

[60] Ibid., p. 2.

[61] Letter from A.E. Conroy, Director Pesticides and Toxic Substances Enforcement Division, U.S. EPA to F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company, November 9, 1981, p. 2. See Appendix at Exhibit S.

With regard to the dehydration equipment, Mr. Conroy stated that neither EPA nor FERC was able to estimate its benefit to overall PCB mitigation. Therefore, he suggested that its installation was at the company's own discretion. The EPA enforcement official also advised TEGPL that the agency would develop and forward a monitoring and reporting program to determine the effectiveness of the remedial measures.

The monitoring program consisted of condensate sampling at approximately fourteen key locations and condensate removal. The program required the company to make a "showing [of] the volume of PCB contaminated liquids collected during each reporting period".[62] The report of the volume of condensate collected was to be broken down into that portion which was between 50 and 500 ppm PCB and that which is 500 ppm and greater. Gas stream sampling also was to be conducted. Quarterly reports were required. On January 21, 1982, Texas Eastern provided EPA with the specific sampling locations and actions to be taken for its monitoring and reporting program.

E. TEXAS EASTERN AND TRANSWESTERN VIOLATIONS

On November 29, 1984, EPA Region IX (San Francisco) issued an administrative complaint against Transwestern Pipeline Company for improper marking, storage, and disposal of PCB-laden waste oils into earthen pits in Arizona, in violation of the PCB Rule. In connection with that complaint, Region IX and Texas Eastern entered into a consent agreement and final order on April 25, 1985. The order required Transwestern to pay a $125,000 penalty and to clean up the earthen pits. (It should also be noted that, initially, Transwestern had refused for some time to admit an EPA inspector into the Arizona site.[63]) Texas Eastern had appealed the penalty to the EPA headquarters staff responsible for monitoring the waste oil compliance agreement and the PCB-condensate remediation program. TEGPL's argument was that the Transwestern Arizona situation was already covered under the August 3, 1982, compliance agreement.[64] TEGPL was informed by the headquarters staff that the compliance agreement did, in fact, apply to the earthen pits and the fine was levied by Region IX because the compliance agreement had been violated.[65]

In August 1985, EPA issued a notice of noncompliance for improper marking and recordkeeping violations at Texas Eastern's Delmont, Pennsylvania, compressor station. Texas Eastern had installed a diffuser and storage tank at this location. The diffuser removed condensate from the system that was then contained in the storage tank. An EPA inspector held that Texas Eastern had stored PCB-laden condensates in the unmarked storage tank for over one year without appropriate documentation. That was in violation of the PCB Rule which, by January 1984, required appropriate recordkeeping for PCBs stored beyond one year's time.[66]

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[62] Letter from A.E. Conroy, Director, Pesticides and Toxic Substances Enforcement Division, U.S. EPA to F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company, December 7, 1981, pp. 2-3. See Appendix at Exhibit Y.

[63] Interview with OCM staff, March 9, 1987.

[64] Ibid.

[65] Ibid. See also 1982 Consent Agreement at p. 6, paragraph 4. See Appendix at Exhibit Q.

In its defense, Texas Eastern argued that the diffuser and storage tanks were not storage facilities under the Rule. Rather, they were part of the Texas Eastern pipeline system. EPA rejected this argument. It insisted that the tanks were storage facilities within the meaning of the Rule. Consequently, marking, recordkeeping and a spill prevention control and counter measures plan was required. A notice letter was sent to Texas Eastern.

F. Disclosure of Disposal Pits

TEGPL then asked the staff of the headquarters Office of Compliance Monitoring (OCM) in the Office of Pesticides and Toxic Substances (OPTS) for an August 29, 1985 meeting to discuss the status of the Delmont situation. Toward the end of that meeting Texas Eastern informed the EPA staff that it had discovered that condensates and waste oils had been disposed of into some earthen pits. EPA requested further information.[67]

Following up on the August 29 meeting, TEGPL wrote to EPA on November 19, 1985, with information on the pits.[68] The soil in three Texas Eastern pits, the company reported, contained PCBs between 386 and 4,278 ppm. Texas Eastern also told EPA that 48 pits had been backfilled. TEGPL informed EPA that it had retained an environmental consulting firm to conduct pilot sampling at selected compressor station sites.

Because no additional information followed in a timely fashion, EPA wrote to Texas Eastern four months later on April 1, 1986, requesting further data.[69] Texas Eastern responded on April 25.[70] Its consultant's sampling report on eight pits disclosed that widespread problems regarding the use and contamination of earthen pits from the disposal of pipeline condensates was indicated.

At a meeting between EPA/OCM and TEGPL on April 30, 1986, OCM staff requested of Texas Eastern more detailed sampling of specified pits. Texas Eastern also was advised by the EPA staff that it may have violated the PCB Rule.

On November 5, 1986, representatives of EPA's Office of Enforcement and Compliance Monitoring (OECM) and the Office of Compliance Monitoring (OCM) within the Office of Pesticides and Toxic Substances (OPTS); the Department of Justice; and Texas Eastern Gas Pipeline met at TEGPL's request to discuss the PCB-contamination of the Texas Eastern compressor station pits. Texas Eastern asked that EPA Headquarters develop and direct a coordinated national compressor station sites cleanup program. No decisions were taken at this meeting.[71]

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[66] 40 CFR 761.65(a).

[67] Meeting with OCM Staff, March 9, 1987.

[68] Letter from Cohagan, Texas Eastern to Seitz, EPA, November 19, 1985. See Appendix at Exhibit Z.

[69] Letter from John J. Neylan, III, Director, Compliance Division, U.S. EPA, to Cohagan, Texas Eastern, April 1, 1986. See Appendix at Exhibit AA.

[70] Letter from H.D. Church, Vice President, Texas Eastern, to John J. Neylan, III, U.S. EPA, April 25, 1985. See Appendix at Exhibit BB.

[71] Interviews with EPA staff, March 9, 1987.

Texas Eastern submitted to EPA its consultant's preliminary sampling report on December 16, 1986. Company officials met with representatives of EPA's OECM, OPTS and its Office of Solid Waste and Emergency Response on December 19 to discuss that report. On January 16, 1987, the company forwarded to EPA another of its consultant's reports, which indicated the presence of dioxins at below threshold levels. On February 3, 1987, EPA's OECM advised Texas Eastern's outside counsel that site testing must address Resource Conservation and Recovery Act (RCRA) and Superfund contaminants and their cleanup.

V. U.S. ENVIRONMENTAL PROTECTION AGENCY

A. EPA Moves To Discover Extent of Pipeline PCB Problem[71a]

Subsequent to the discovery of PCB's in the residential gas meter on Long Island, EPA moved with considerable speed to determine whether or not PCB's were being carried into the nation's homes and businesses through natural gas pipelines. On January 22, 1981, the Agency's Acting Assistant Administrator for Enforcement notified all of EPA's Regional offices of the PCB finding.[72] The region's were advised that a Task Force was established to address the problem.

As part of EPA's efforts to obtain the assistance of the pipeline companies the Director of the Air and Hazardous Materials Division of the Agency's Region V (Chicago) wrote to Texas Eastern on February 6, 1981.[73] The letter advised the company that Region V's sampling had determined that in the midwest PCBs were found in condensate and oil at various points of pressure change in gas transmission systems and in gas meters. In the Chicago area, levels of PCB concentration were between 50 and 500 ppm, "which brings the condensate and oil of concern under the stringent handling and disposal requirements of the Polychlorinated Biphenyl Regulations issued under the Toxic Substances Control Act. (See 40 CFR, Part 761.)" The letter further advised Texas Eastern:

> If any of the condensate and oil that collects in, or is cleaned from, your gas transmission system contains greater than 50 parts per million PCB, your company is required by law to follow strict procedures in storing, labeling, and disposing of this material, and in keeping records on its disposition.

The Acting Assistant Administrator for Enforcement wrote on February 26, 1981,[74] to advise the regions of EPA's strategy to determine the source and extent of the PCBs in gas pipelines. That strategy included: "a national sampling program for condensate sampling by interstate transmission companies; a program for sampling of condensate, gas and air (if necessary) by local utilities; and a regional program for inspecting gas pipeline compressors." The Assistant Administrator's memorandum also said that, "Recognizing limited agency resources, this program relies heavily on the cooperation of both gas utilities and interstate pipeline companies for sampling and analysis of various media."

[71a] For an EPA prepared chronology of the Texas Eastern situation, see Appendix at Exhibit JJ.

[72] Memo from Jeffrey G. Miller, Acting Assistant Administrator for Enforcement, U.S. EPA to Regional Administrators—Regions I-X, January 22, 1981. See Appendix at Exhibit CC.

[73] Letter from David Kee, Director, Air and Hazardous Materials Division, U.S. EPA Region V to Texas Eastern Pipeline Company, February 6, 1981. See Appendix at Exhibit DD.

[74] Memo from Jeffrey G. Miller, Acting Assistant Administrator for Enforcement, U.S. EPA, to Regional Administrators—Regions I-X., Feb. 26, 1981. See Appendix at Exhibit EE.

In fact, the industry's trade association, Interstate Natural Gas Association of America (INGAA), first became involved on January 27, 1981. The Director of Pipeline and Producer Regulation of the Federal Energy Regulatory Commission (FERC), asked INGAA's President to attend a meeting with FERC and EPA staff at FERC to discuss the pipeline situation and a nationwide testing program.[75] INGAA agreed to cooperate and participate. A second meeting was held at FERC on January 30, 1981 to formulate a plan for nationwide testing and implementation. In addition to EPA and FERC, INGAA and representatives of various companies, including Texas Eastern's Vice President, were in attendance. Again, on February 4, 1981, EPA, FERC, INGAA, and company representatives, including Texas Eastern's Vice President, met at FERC's offices. The companies presented maps of their systems indicating the locations where condensate sampling and testing were to occur. It was also decided at the February 4 meeting that reports would be sent directly to EPA. INGAA was to be the coordinator of the program for the interstate pipeline companies.[76]

On August 27, 1981, A.E. Conroy, Director of the office then known as the Pesticides and Toxic Substances Enforcement Division wrote to all Regional Enforcement, Air and Hazardous Materials, and Surveillance and Analysis Division Directors. In his memorandum, Mr. Conroy advised the regions of the establishment of the nationwide testing program. Attached to the memo was a remedial strategy by which the regions were expected to establish guidelines to carry out a cooperative program with local distribution companies. Once the companies submitted technical proposals for cleanup, the regions would review them, reach an agreement with the individual utilities and submit the plans to headquarters to establish that the proposals were consistent on a national basis. Mr. Conroy concluded, "The plan will then be implemented as quickly as possible with EPA systematic oversight."

B. EPA REQUESTS PLAN FOR HANDLING PCB s REMOVED FROM PIPELINES

It should be noted that, with regard to EPA's letter to Texas Eastern, dated May 27, 1981, Mr. Conroy informed TEGPL that its pipeline contained "PCBs in concentrations in excess of 50 ppm." Therefore, "the pipeline is a PCB item within the meaning of 40 CFR 761.2(x). The use of such items is regulated pursuant to 40 CFR 761.30 and section 6(e) of the Toxic Substances Control Act (TSCA). * * *"[77]

Texas Eastern was informed that EPA sought a four-step program to "quickly reduc[e] any risks from the PCBs in [TEGPL's] pipelines. The first step," stated Mr. Conroy, "is to ensure that any PCBs being removed from your system are handled properly."

EPA went on to say that:

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[75] Hearings, p. 189.
[76] Hearings, pp. 189-190.
[77] Letter from Conroy, May 27, 1981. See Appendix at Exhibit FF.

> The Agency's most immediate concern is that PCB contaminated condensate handled as part of normal operations does not pose any human or environmental risk. Accordingly, we request that you prepare and submit to the Agency a plan for handling all PCB liquids removed from your system.

Among the contents of the plan were the locations from which liquids were being removed; the estimated amount of liquids to be removed; a description of worker safety measures; and, "Procedures you will follow for handling, marking, storing and disposing of the PCBs in accordance with TSCA and the applicable Department of Transportation regulations." Texas Eastern's response to this request on August 20, 1981 set out remedial measures and demonstrated an understanding of the PCB Rule's handling, marking, storing and disposal requirements.[78] EPA, on November 9, 1981 accepted Texas Eastern's proposed measures.

In a December 7, 1981 letter, EPA then outlined a monitoring plan to be used in conjunction with the company's remedial measures. In addition to the monitoring plan, Mr. Conroy set out a quarterly reporting schedule. As part of the quarterly reporting data, EPA asked for the volume of condensate collected from the monitoring points; the total volume of PCB-contaminated condensate collected from the system with PCB concentration of 50–500 ppm and with concentrations above 500 ppm.

The December 7 letter also contained a request for a list of the exact locations of sampling sites and a list of the locations of all points from which PCB-contaminated condensates were removed from the system. In an appendix, "Suggested Format for Condensate Collection Report," EPA provides two columns entitled, "Stored At" and "Disposed At."

TEGPL's January 21, 1982 response to EPA's letter concerning reporting and monitoring, describes its monitoring plan.[79] This response made no mention of volumes of contaminated liquids which were disposed of. Texas Eastern began reporting on April 15, 1982. Its reports contained "Liquid stored" and "Liquid Disposed of by" columns. The latter column was blank in TEGPL's submission of July 15, 1982. However, for various collection points, the "Liquid Stored" column contained a local and State designation. In fact, the first entry in the "Liquid Disposed of by" column is for the reporting period April 1, 1985–September 30, 1985. There apparently exists no documentation that EPA commented on TEGPL's failure to report on disposal.[79a]

For the reporting periods April 1982 thru March 1986, Texas Eastern/Transwestern reported disposing of only a fraction of the PCB contaminated condensates which they reported removing from their systems. For condensates containing between 50 and 500 ppm PCB for this period, the companies reported the removal of 538,628 gallons. They reported removing 75,740 gallons of condensate containing above 500 ppm PCB. However, Texas Eastern/Transwestern reported the disposal of 38,204 gallons or only 6.2 percent of the PCB fluids removed during this period. In response to the Subcommittee's questioning, EPA acknowledged that it had failed to compare the amount of condensate the companies reported having removed to the amount that it reported having disposed of. "We did not do a mass balance," EPA's A.E. Conroy told the Subcommittee.[80]

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[78] Letter from F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company, to John Seitz, U.S. EPA, August 20, 1981. See Appendix at Exhibit R.

[79] Letter from F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company to John Seitz, U.S. EPA, January 21, 1982. See Appendix at Exhibit GG.

[79a] Meeting with OCM staff, March 9, 1987.

C. TEXAS EASTERN DISCLOSURE

The Transwestern Pipeline Company was fined $125,000 in April, 1985 by EPA's Region IX for the illegal disposal of PCB contaminated waste oils into five unlined scrubber pits in Arizona. EPA headquarters staff informed the Subcommittee that it was unaware of this action until a call was received from the Texas Eastern Vice President who was involved in negotiating the remediation program for TEGPL.[81] This company official sought EPA headquarters assistance to waive the penalty. He argued that Transwestern was covered by the Consent Agreement in which a $159,800 penalty had already been waived. The official maintained that the Transwestern action, though discovered in 1984, two years subsequent to the signing of the consent agreement, was nevertheless covered by it. EPA Headquarters staff rejected Texas Eastern's argument on behalf of Transwestern. However, EPA did not consider the possibility that the company's eastern portion might also contain pits into which PCB laden fluids were illegally disposed. No inquiry was apparently made by EPA of Texas Eastern in this regard. EPA headquarters did not independently investigate (nor did it advise its regions to do so) the eastern portion of Texas Eastern's system to determine whether or not situations similar to those in Arizona existed.[82]

Late in 1984, an EPA Region III (Philadelphia) inspector discovered that, in violation of the PCB Rule, TEGPL was storing PCB contaminated condensate in unmarked tanks at a compressor station in Delmont, Pennsylvania. The Rule, in effect since January 1, 1984, prohibited storage of PCB materials beyond one year without meeting certain recordkeeping and other requirements. On August 14, 1985, Region III issued a Notice of Noncompliance to Texas Eastern for improper PCB marking and recordkeeping at the Delmont compressor station.

According to EPA personnel, Texas Eastern officials requested a meeting with staff of the Toxic Substance Office of Compliance Monitoring on August 29, 1985. The company representatives said that they wanted to discuss the Delmont, Pennsylvania Notice of Noncomplaince. During that meeting Texas Eastern first raised the issue of the use of earthen pits for the disposal of PCB contaminated fluids. While Office of Compliance Monitoring personnel requested further information regarding the use of earthen disposal pits, they expressed no alarm or demands of TEGPL for immediate action.[83]

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[80] Hearings, p. 52.

[81] Meeting with EPA staff, March 9, 1987.

[82] Ibid. and Hearing, p. 47.

OCM staff have informed the Subcommittee staff[84] that upon receiving a letter from TEGPL dated November 19, 1985,[85] they first became aware that the disposal pit issue might be significant. In that letter the company advised EPA that it may have placed PCB fluids into earthen pits. It reported having backfilled 48 pits. And it reported that three pits contained between 386 and 4,278 ppm PCBs. But, according to EPA staff, what got their attention was a disclosure by Texas Eastern that it hired a well known environmental engineering firm to sample selected compressor sites for PCB contamination.[85a] This action was beyond the scope of any previous discussions between EPA and TEGPL.

D. Lack of Diligence in Follow-Up

Having heard nothing from Texas Eastern and despite heightened concerns raised by the company's November 19, 1985 letter, the OCM staff waited until April 1, 1986, seven months after the August 29 disclosure, before requesting additional information on the use of the earthern pits.[86]

It was not until April 9, 1986, that OCM advised EPA Regions II–VII Toxic Substances Division Directors of the existence of the disposal pits.[87] Region II was advised that PCB contaminated sites were located at Lambertville, (West Amwell) and Linden, New Jersey. The memo informed the Regions that Texas Eastern would be supplying additional information which would be provided as appropriate when received. It further advised that the Regional Toxic Division Directors share the memo with the Regional Hazardous Waste Divisions.

The New York/New Jersey EPA Regional Administrator insisted to the Subcommittee that OCM's April 9 memo did not require any follow-up.[88] The EPA regional offices neither followed up to ascertain whether a problem may have existed, nor did they inform the respective states about sites of possible PCB contamination. EPA headquarters and regional offices have maintained that they assumed no health problem existed since PCBs in soils normally do not migrate, unless combined with substances that do migrate, and since it was assumed from the initial company correspondence that the compressor stations were in remote locations. Therefore, the Agency did not begin an investigation. Rather, it waited for TEGPL to report.

Texas Eastern's response to EPA's request for information regarding the use of earthen pits for the purpose of disposing of pipeline liquids came on April 25, 1986, 8 months after the August disclosure. TEGPL provided its consultant's sampling report of eight compressor stations. The sampling report indicated significant PCB contamination. In addition, Texas Eastern's response revealed widespread use of earthen pits for the disposal of pipeline fluids.

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[83] Meeting with OCM staff, March 9, 1987.

[84] Meeting with OCM staff, March 9, 1987.

[85] Letter from F.L. Cohagan, Vice President, Texas Eastern Gas Pipeline Company, to John Seitz, Chief Compliance Office, Office of Pesticides and Toxic Substances, U.S. EPA, Washington, D.C., November 19, 1985. See Appendix at Exhibit Z.

[85a] Meeting with OCM staff, March 9, 1987.

[86] Letter from John J. Neylan, III, U.S. EPA to Cohagan, Texas Eastern, April 1, 1986. See Appendix at Exhibit AA.

[87] Hearing, p. 52–53.

[88] Hearing, p. 52–53.

OCM staff met with Texas Eastern officials again on April 30, 1986. More detailed sampling was requested. TEGPL was also advised by agency staff that serious violations of the PCB Rule may have occurred.

Between April 30 and June 30, 1986, EPA did not initiate an investigation of this matter. Neither the affected States nor local officials and residents were advised of possible contamination.

EPA's Pesticides and Toxic Substances office did not contact its enforcement counsel until June 30, 1986. On that date, the Assistant Administrator for Pesticides and Toxic Substances sent a memo to the Acting Assistant Administrator for Enforcement and Compliance Monitoring (OECM).[89] The memo advised that TEGPL's actions regarding the disposal of PCB laden pipeline fluids into unlined earthen pits may warrant a criminal investigation.

There existed some dissension within OECM as to whether or not a civil or criminal investigation was warranted or appropriate. No serious civil or criminal investigation was immediately undertaken by OECM. However, at the request of Texas Eastern's outside counsel, OECM, OCM and Department of Justice staff met with TEGPL on November 5, 1986. Texas Eastern asked to discuss the technical and legal issues involved. The company was seeking a national settlement agreement under TSCA whereby it would clean up any contamination caused by its disposal of pipeline fluids. TSCA is a national, not a state delegated program. It does not require a company to obtain cleanup permits from each affected State.[90] Cleaning up contamination under the Resource Conservation and Recovery Act (RCRA), however, would require Texas Eastern to negotiate cleanups with affected States which were delegated the RCRA program, or with EPA where affected States were not delegated the program (Ohio and Alabama are two such States in the Texas Eastern case). Such a process could be much more costly and time consuming than would be a national TSCA settlement and cleanup.

It was not until December 1, 1986, however, that OECM's Assistant Administrator advised the Regional Administrators of Regions II–VII of an ongoing Texas Eastern investigation. Yet the Subcommittee found in March 1987 that an internal dispute still raged within OECM over whether or not to proceed with a criminal investigation directed at Texas Eastern. Until subpoenas were issued to the company,[91] only a civil investigation had begun by December 1, 1986.

On December 19, 1986, TEGPL provided additional sampling data to OECM. In addition, EPA learned that dioxin may have been present in some of the pits. Texas Eastern had burned some of the PCB contaminated liquids. Such burning may have been the source of dioxin. Following up on the preliminary dioxin data, TEGPL provided additional information on eight sites to OECM on January 16, 1987. This resulted in a February 19 memo[92] to the regional RCRA Directors of Regions II–VII from the Director of the Office of Waste Programs Enforcement. The memo advised the regional RCRA Directors of the TEGPL investigation. RCRA and Superfund enforcement staff then became formally involved in this case.

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[89] Memo from John Moore, Assistant Administrator for Pesticides and Toxic Substances, U.S. EPA, to Richard Mays, Acting Assistant Administrator for Enforcement and Compliance Monitoring, U.S. EPA, June 30, 1986. See Appendix at Exhibit HH.

[90] 15 U.S.C. 2601.

[91] CERCLA/RCRA information requests February 17 and March 11, 1987; TSCA/CERCLA information request March 20, 1987.

Prior to newspaper accounts of February 21, 1987, 18 months from the date the Agency had become aware of the pits, EPA had not informed State and local officials or the public of their existence. In their testimony before the Subcommittee, Agency staff acknowledged that they should have acted more quickly.[93] The EPA representatives informed the Subcommittee that it was not until December 1986 that they received from Texas Eastern site specific information on which the Agency could operate.[94] "The facts started changing as we get close to December 1986," one Agency official told the Subcommittee.[95] Because it was believed that the sites were in remote areas and PCBs which had adsorbed in soils generally did not migrate and therefore probably did not pose a health threat, EPA decided not to proceed on its own. Instead, it waited for Texas Eastern to provide additional information.

An agency Assistant Administrator, when asked whether there existed a diligence within the Agency to search out information rather than to rely on the presumption that PCBs did not migrate said, "The concept here is one of they [the Pesticides and Toxic Substances Office of Compliance Monitoring, the EPA program office] had asked for information and it was dribbling in very, very slowly." [96] This official went on to defend the Agency's position by saying that in seeking necessary data, the Government relies heavily on voluntary cooperation.

A program official, during his testimony, stated that, in his opinion, Texas Eastern had been less than forthright with EPA over the four years of reporting under the pipeline PCB-condensate remediation program.

> [Texas Eastern was] warned back in 1981 that they had to comply with the disposal requirements of the PCB Rule. They had reported to us on a quarterly basis for two years that they were doing exactly that, that they were storing them in accordance with the rule and that they were burning them at incinerated permitted sites around the country. Those reports continued to come in right up until 1985. * * * We really did not have an indication that this company was not being forthright and was not complying with the statute. * * * It was a turn around situation, something that had been voluntarily complied with, we thought, and all of a sudden three or four years into a pro-

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[92] Memo from Gene Lucero, Director, Office of Waste Programs Enforcement to Hazardous Waste Division Directors, Regions II-VII.

[93] Hearings, p. 46.

[94] Ibid.

[95] Ibid.

[96] Ibid., p. 47.

> gram they are telling us that they are not totally complying.[97]

E. EPA Staff Knowledge of Use of Disposal Pits

While the Company alleges that somehow EPA staff knew and condoned of the disposal of PCB-laden condensates into pits,[98] Texas Eastern provided no documents that satisfactorily support its contention. However, the Company provided to the Subcommittee a January 21, 1982, letter [99] (including attachments) to EPA in support of its claim that EPA staff were aware of the company's use of pits to dispose of the condensates. On the first page of the Transwestern attachment is a description of three condensate collection points. In a righthand column, under the title "Sampling Point" is written "Scrubber Pit" next to each of three locations.[100] The company argues that this document put EPA on notice.

The President of the Interstate Natural Gas Association of America responded to questions posed by the Subcommittee.[101] These questions related to the contention that EPA staff was knowledgeable about TEGPL's use of disposal pits. INGAA participated with EPA and the Federal Energy Regulatory Commission in the initial efforts to determine the extent of the PCB-contaminated pipeline condensate problem. Once determined, INGAA assisted in establishing the remediation program. The questions and responses follow:

> Q. At any meeting between EPA staff and INGAA member companies at which INGAA personnel were present, was there any mention of earthen disposal pits into which PCB contaminated liquids would be placed?
>
> A. To the best of my knowledge earthen pits were never mentioned where INGAA and EPA or other personnel were present.[102]
>
> Q. From any conversation or documentation between EPA and INGAA personnel relevant to the establishment of the PCB contaminated condensate remediation program, was it the understanding of INGAA representatives that the placement of such condensate into unpermitted earthen pits constituted compliance with the PCB Rule, TSCA and/or the remedial program?
>
> A. There was never an understanding, directly or indirectly, either in conversation or documentation, that the placement of contaminated condensate into unpermitted earthen pits constituted compliance with the PCB Rule, TSCA and/or the remdial program. * * *[103]
>
> Q. Did you, or any member of INGAA staff, advise Texas Eastern Gas Pipeline Company, or any other company, that the use of earthen pits by which to dispose of waste

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[97] Ibid., pp. 47-48.

[98] Meeting with Texas Eastern representatives, February 25, 1987.

[99] Hearings, pp. 23-36.

[100] Ibid., p. 30.

[101] Ibid., pp. 188-285.

[102] Ibid., p. 190.

[103] Ibid., p. 191.

> oils and condensates containing PCBs was an acceptable practice under the PCB Rule or the condensate remediation program, or that the practice was illegal but, "* * * if you do it, don't get caught?"
>
> A. No one from INGAA advised Texas Eastern Gas Pipeline Company or any other company that the use of earthen pits to dispose of waste oils and condensates containing PCB's in any form was an acceptable practice. In fact, in preparing this response I have carefully gone through our records * * * and nowhere in those files was earthen pits mentioned. * * * No one at INGAA has ever said to any member company, "If you do it, don't get caught." [104]

On February 2, 1981, INGAA sent a memorandum to its member companies, including Texas Eastern, announcing a cooperative industry/government effort to address the problem of PCBs in pipeline fluids. Under subheading, "PCB Regulation" the following was included:

> Disposal of PCBs must be undertaken in accordance with the PCB regulations at 40 CFR 761.10. In general, liquids that contain a PCB concentration of more than 500 ppm must be disposed of in an EPA approved incinerator (Section 761.10(a)(1)). The regulations also contain specific requirements governing the disposal of liquids containing a PCB concentration of between 50 and 500 ppm (Section 761.10(a)(4).)[105]

F. RESOURCES IN SUPPORT OF PCB RULE COMPLIANCE

The years 1983 and 1984 were times of significant expansion and modification of the PCB Rule. Such expansion and modification presumably would have been accompanied by additional resources beyond those which previously existed. Yet, the personnel and extramural (contracting) resources for PCB and other compliance monitoring had reached their lowest points in those two years. Though resources began to increase in 1985, 1987 resources remained considerably below those of 1981.

Headquarters Office of Compliance and Monitoring personnel (in Full Time Equivalent (FTE) positions) and dollar resources for 1981–1987 were as follows: [106]

HEADQUARTERS PCB COMPLIANCE MONITORING RESOURCES

Year	1981	1982	1983	1984	1985	1986	1987
FTE	30.0	19.9	14.1	14.3	18.8	21.4	23.2
[In millions]	$1.5686	$0.9271	$0.207	$0.2647	$0.2539	$0.3624	$0.4675
Change		(−.6415)	(−.7201)	(−.0577)	(−.0108)	(+.1085)	(+.1051)

Patterns of regional FTE's for PCB compliance are also instructive to consider.[107]

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[104] Ibid., p. 192.

[105] Hearing, p. 197.

[106] Ibid., p. 130 and data supplied by U.S. EPA.

[107] Ibid.

Year	1981	1982	1983	1984	1985	1986	1987
FTE	24.0	31.1	19.0	19.4	37.7	38.9	39.0

Again, it can be seen that total FTEs across the 10 regions reached their lowest points in 1983 and 1984. However, although regional personnel resources exceed the 1981 level beginning in 1985, it should be noted that headquarters OCM, and not the regions, were overseeing the Texas Eastern remediation program.

It should also be noted that the quarterly reports received by the Office of Compliance Monitoring had to be read manually. That office, like most at EPA, did not receive reports in a form by which equipment could scan reports and flag failures to achieve required parameters. In fact, OCM did not possess such equipment. Subsequent to the March 17 hearing, the Subcommittee was informed that the agency is studying how recent advances in technology can assist the EPA in its work. A senior agency official stated his belief that the Office of Management and Budget, believing that technology does not offset EPA FTEs, would not likely agree to a program of increased use of available technology to scan the plethora of reports received by the agency's various programs.[108] This official did not comment on OMB's position regarding increased efficiency and enforcement which might result from the utilization of available technologies.

G. ENFORCEMENT STRUCTURE

There exist a number of distinct offices within the Environmental Protection Agency which, in one form or another, are involved in the enforcement process. Those offices are the:

Headquarters Office of General Counsel (OGC);
Headquarters Office of Enforcement and Compliance Monitoring (OECM);
Headquarters Program Office;
Headquarters Program Enforcement Office;
Deputy Administrator;
Regional General Counsel;
Regional Program Office; and
Deputy Regional Administrator.

Outside of EPA, the Department of Justice, of course, plays a major role in environmental enforcement actions.

Early in the agency's history, EPA's Regional Administrator and Regional Enforcement Division Directors were given responsibility for leadership in enforcement matters.[109] The enforcement program, in its infancy, has been described by one observer as one which was willing to enforce the Nation's then limited environmental enforcement statutes fairly but firmly.[110] Though state and industry resentment of Federal involvement posed a major obstacle to EPA's initial efforts, the agency's enforcement staff continued to grow.

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[108] Meeting with Senior EPA official, April 1987.

[109] Joel Mintz, Unpublished Manuscript, Assessing Hazardous Waste Enforcement at the EPA: The Historical Roots of the Current Dilemma, 1987, p. 13.

[110] Ibid., pp. 14–15.

As EPA's statutory authority increased, its enforcement program began to mature. Through 1976 the regional offices were still the prominent agency enforcers. Enforcement policy emanated from headquarters, but day-to-day enforcement activities were exercised by regional enforcement personnel. As the States enacted their own environmental statutes and/or were delegated program (air, water, hazardous waste) implementation responsibility by EPA, their own enforcement efforts increased as well. Over time, State/Federal antagonism gave way to State/Federal cooperation.

It has been reported that between 1973 and 1977 EPA preferred to use administrative, rather than judicial enforcement remedies.[111] While this approach avoided litigation, negotiations with industry were sometimes lengthy. Consequently, some regions mixed their administrative enforcement efforts with civil litigation.

EPA's enforcement policy changed dramatically beginning in 1977. It's motto became, "File first and negotiate later." [112] Violations of the Clean Air and Federal Water Pollution Control Acts were to be referred to the Department of Justice (DOJ) "with a recommendation that DOJ institute a civil action against them, in an appropriate Federal district court for injunctive relief and civil penalties." [113] Agency enforcement personnel were told to avoid negotiations until the cases were filed. At this point, the enforcement pendulum had swung completely in the other direction. Litigation was emphasized and administrative orders were deemphasized.

To effect this policy, the EPA Administrator and the Attorney General signed a Memorandum Of Understanding in June 1977 which provided for Department of Justice lawyers' control over the conduct of environmental enforcement litigation. At that point regional enforcement staff believed that they had become secondary players to the Department of Justice in the litigation process.[114] Litigation reports, which once were sent directly from the regions to Justice, were now to be sent to headquarters staff for review. Upon review, headquarters would either send the package on to DOJ or send it back to the regions for additional work. DOJ staff, upon review of a litigation report could, also, seek additional assistance from regional enforcement offices. Once headquarters EPA/Department of Justice finally concurred in a report it was then sent to a local U.S. Attorney's office. There it was reviewed yet again. Once the U.S. Attorney concurred, the case was then filed in the appropriate U.S. District Court.[115] Within EPA, the effect of this policy was to shift overall influence in enforcement matters from the regional offices to headquarters.

The enforcement situation at EPA took another dramatic turn upon the confirmation of a new administration at the agency in 1981. Valdas Adamkus, who has served as the EPA Region V (Chicago) Regional Administrator since 1981 is quoted as saying, "When [Gorsuch] [the former EPA Administrator May 1981–March 1983] came into power, her attitude to enforcement in general was negative, there was no question." [116] Adamkus has also said that the agency's Enforcement Counsel [1981–1982] told him that every enforcement case which his region referred to headquarters "will be considered a black mark against you." [117] Edward K. Kurent, the former headquarters Associate General Counsel for Waste Enforcement, has said of the [Gorsuch] Burford era enforcement efforts, there "was very obviously a deliberate plan to paralyze if not totally dismantle the enforcement program." [118]

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[111] Ibid., pp. 23-24.
[112] Ibid., pp. 25-26.
[113] Ibid., p. 26.
[114] Ibid., p. 28.
[115] Ibid., p. 29.

It would appear that the new EPA administration objected to its predecessor's approach of filing first and negotiating later. Reports continue to circulate among present and former EPA staff that the Burford administration believed that the agency had become a lawyer-led institution. Describing that period, Lawrence Kyte said that "you were to talk first and file later *only* if it was *absolutely* necessary and *only* if you could clear it with headquarters." [119]

In June 1981, Anne Gorsuch abolished EPA's Office of Enforcement (OE). [See Figure 4.] She transferred compliance and technical personnel. OE compliance and technical staff exercised technical expertise in their environmental program areas, e.g., air, water, pesticides, toxic substances, hazardous wastes, and wrote permits or inspected sites and facilities for compliance with permit terms and statutory requirements. They were transferred to headquarters media programs. One such media office was the Office of Pesticides and Toxic Substances. [See Figure 5.]

In OE's place was established an Office of Legal and Enforcement Counsel (OLEC) which reported directly to the Administrator. OLEC's responsibilities included both General Counsel and enforcement activities.

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[116] Ibid., p. 46.
[117] Ibid., p. 47.
[118] Ibid., p. 46.
[119] Ibid., p. 47.

ORGANIZATION CHART

OFFICE OF ENFORCEMENT

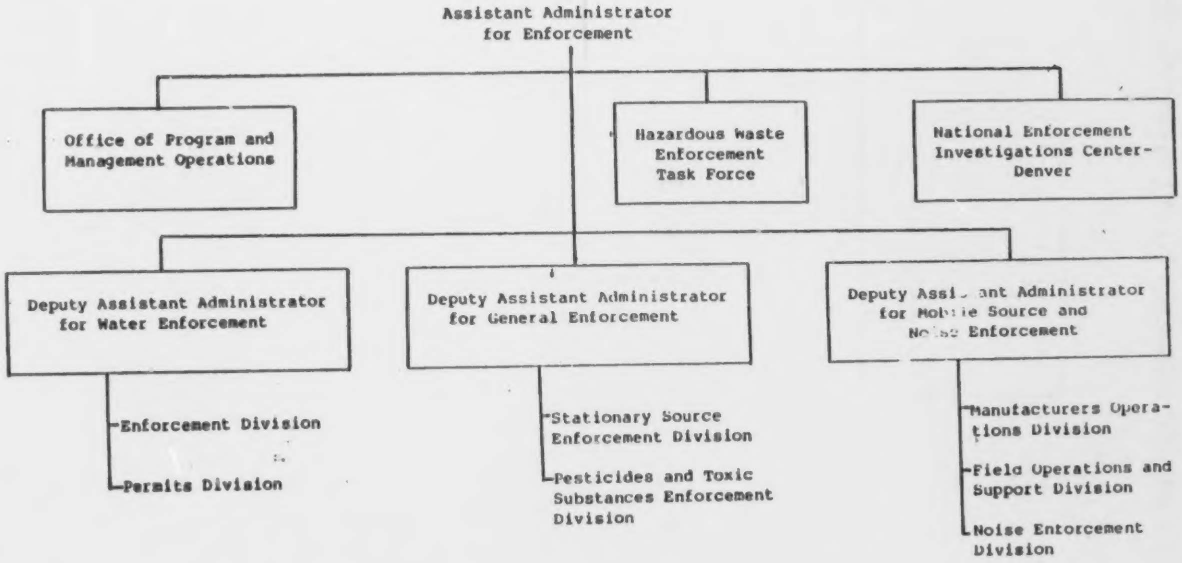
Assistant Administrator for Enforcement
Office of Program and Management Operations
Hazardous Waste Enforcement Task Force
National Enforcement Investigations Center-Denver
Deputy Assistant Administrator for Water Enforcement
Enforcement Division
Permits Division
Deputy Assistant Administrator for General Enforcement
Stationary Source Enforcement Division
Pesticides and Toxic Substances Enforcement Division
Deputy Assistant Administrator for Mobile Source and Noise Enforcement
Manufacturers Operations Division
Field Operations and Support Division
Noise Enforcement Division

Figure 4.
(Source: U.S. Environmental Protection Agency)

OFFICE OF PESTICIDES AND TOXIC SUBSTANCES

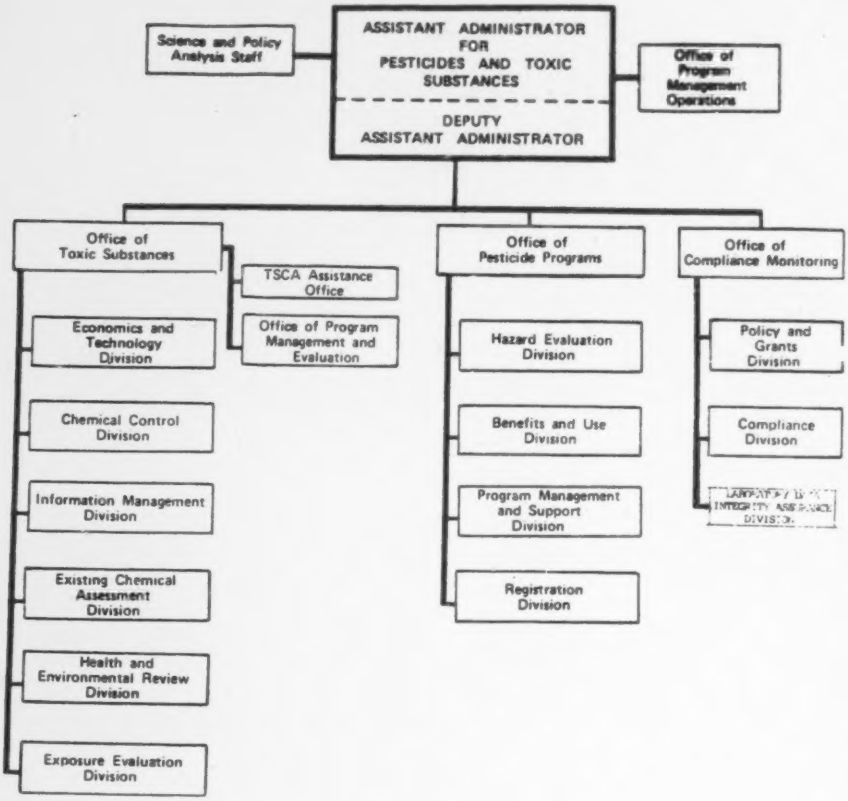
Science and Policy Analysis Staff
ASSISTANT ADMINISTRATOR FOR PESTICIDES AND TOXIC SUBSTANCES
DEPUTY ASSISTANT ADMINISTRATOR
Office of Program Management Operations
Office of Toxic Substances
TSCA Assistance Office
Office of Program Management and Evaluation
Economics and Technology Division
Chemical Control Division
Information Management Division
Existing Chemical Assessment Division
Health and Environmental Review Division
Exposure Evaluation Division
Office of Pesticide Programs
Hazard Evaluation Division
Benefits and Use Division
Program Management and Support Division
Registration Division
Office of Compliance Monitoring
Policy and Grants Division
Compliance Division
LABORATORY DATA INTEGRITY ASSURANCE DIVISION

Figure 5
(Source: U.S. Environmental Protection Agency

In September 1981, the regional enforcement offices were abolished. As in the headquarters enforcement reorganization, the compliance and technical staffs were transferred to the regions' media programs. Legal enforcement staff attorneys involved in enforcement were transferred to the Offices of Regional Counsel.

The reorganization was essentially complete when, in December 1981, Ms. Gorsuch created the Office of Enforcement Counsel. [See Figure 6.] It was out of this office that most of EPA's headquarters legal enforcement actions would emanate.

PROPOSED ORGANIZATION

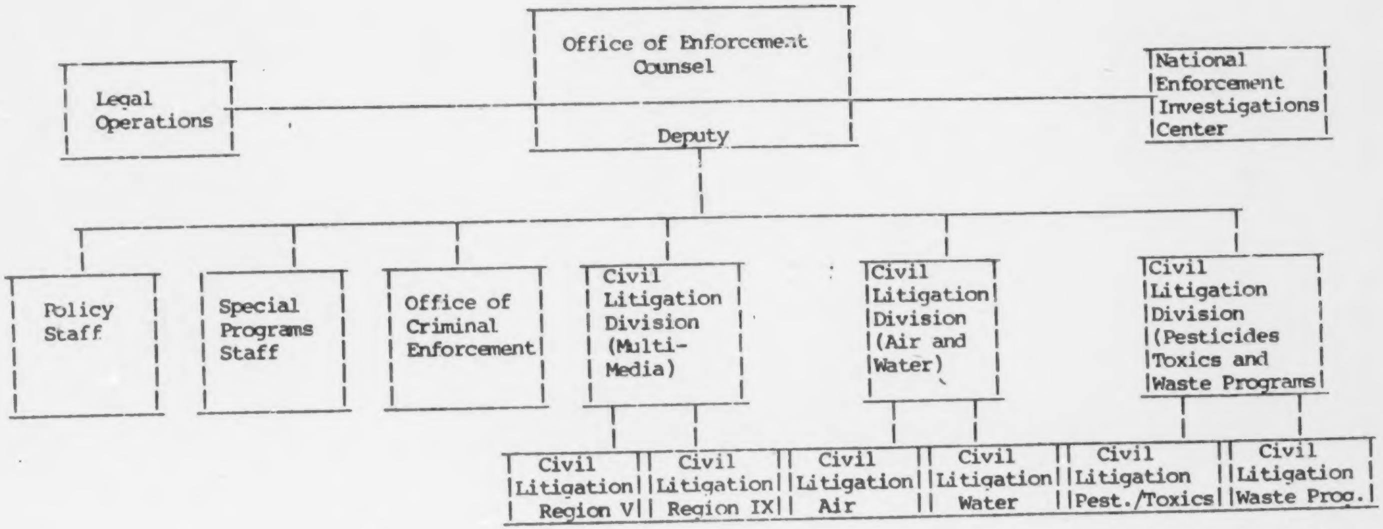
Office of Enforcement Counsel
Deputy
Legal Operations
National Enforcement Investigations Center
Policy Staff
Special Programs Staff
Office of Criminal Enforcement
Civil Litigation Division (Multi-Media)
Civil Litigation Division (Air and Water)
Civil Litigation Division (Pesticides Toxics and Waste Programs
Civil Litigation Region V
Civil Litigation Region IX
Civil Litigation Air
Civil Litigation Water
Civil Litigation Pest./Toxics
Civil Litigation Waste Prog.

Figure 6.
(Source: U.S. Environmental Protection Agency)

This action formally completed the separation of the Environmental Protection Agency's *legal* enforcement staff (i.e., the enforcement attorneys) from its *technical* enforcement staff (i.e., its technically trained, non-legal personnel whose functions were to write permits and to assure compliance through inspections, etc.). Legal and technical staffs which had previously worked together under a single Office of Enforcement at headquarters and in the regions were now separated both physically and organizationally.

Since experience has shown EPA to be a "turf" oriented agency, the organizational separation of staff into offices headed by different presidential appointees cannot be considered an insignificant action. The attorneys were no longer supported by technical personnel. Technical enforcement staff were less familiar with EPA/industry negotiations. Without legal support, technical and other compliance personnel were at a considerable disadvantage in establishing programs or negotiating terms with industry. The separation resulted, according to a variety of accounts, in technical staff delaying its discussion with enforcement attorneys. Given EPA's legendary "turf" fights, the program office (where the technical and compliance experts sit) would strain to retain control of an issue before talking to another Assistant Administrator's staff. This was likely to lead to unreasonable delays in bringing enforcement lawyers into a case and, ultimately, in resolving a case.

The net result of all of the 1981 changes was that the number of regional enforcement actions referred to headquarters EPA, and headquarters referrals to the Justice Department, fell precipitously.[120] Administrator Gorsuch's Enforcement Counsel, William Sullivan said, "The poor regional attorneys were left in a position where they didn't know who the hell they worked for. They didn't know what the marching orders were. They couldn't even tell what the procedures were from day to day." [121]

There can be little doubt that when EPA's first Administrator, William D. Ruckelshaus, returned to EPA as its Administrator in May 1983, improving the agency's enforcement posture was much on his mind. He told EPA's Regional Administrators that enforcement was among the agency's top priorities and that "EPA's will to enforce should be a given [—] no one should doubt that the laws and regulations of EPA mean what they say and will be enforced." [122]

Reversing some of the agency's past enforcement policies, the Ruckelshaus administration returned some primacy to EPA's regional offices. They could again refer some cases directly to the Department of Justice without review and approval from headquarters.[123] Mr. Ruckelshaus also elevated the previous position of Enforcement Counsel. He created the Office of Enforcement and Compliance Monitoring [see Figure 7] to be headed by a presidentially appointed Assistant Administrator. OECM's responsibilities included overseeing regional and headquarter's enforcement actions and developing enforcement policies and procedures for compliance with EPA's standards and regulations. Those responsibilities also included, in some instances, preparing, filing and negotiating cases.

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[120] Ibid., p. 59.

[121] Ibid.

[122] Joel A. Mintz, "Enforcement in the Second Ruckelshaus Era," *The Environmental Forum*, March 1984, p. 6.

[123] Ibid., p. 6.

OFFICE OF ENFORCEMENT AND COMPLIANCE MONITORING

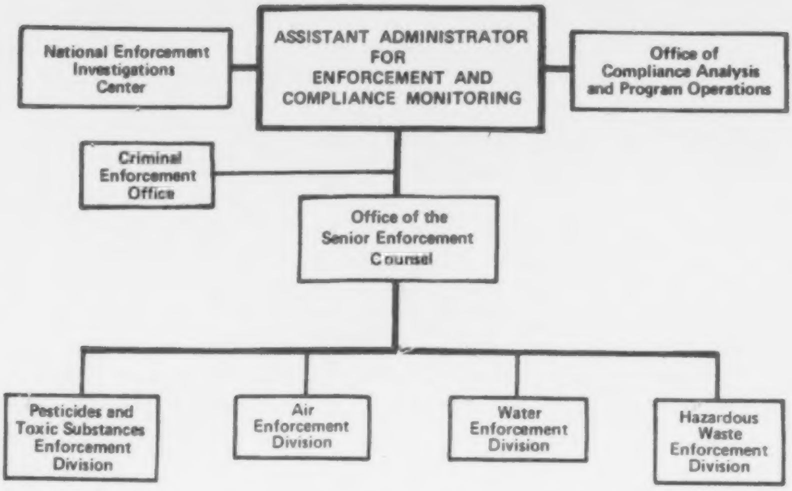
ASSISTANT ADMINISTRATOR FOR ENFORCEMENT AND COMPLIANCE MONITORING
National Enforcement Investigations Center
Office of Compliance Analysis and Program Operations
Criminal Enforcement Office
Office of the Senior Enforcement Counsel
Pesticides and Toxic Substances Enforcement Division
Air Enforcement Division
Water Enforcement Division
Hazardous Waste Enforcement Division

Figure 7.
(Source: U. S. Environmental Protection Agency)

Significantly, what the Ruckelshaus administration did not do was to recombine the technical, non-legal enforcement staff with the enforcement attorneys. The Subcommittee staff was informed that though Mr. Ruckelshaus had considered reorganization of the enforcement office again, he felt that the staff's morale was precarious enough and that another reorganization might have further deleterious effects. At headquarters today, the Ruckelshaus model still stands. The enforcement attorneys continue to reside in OECM. In the regions, they remain in the Offices of Regional Counsel. The technical staff, however, remain in the program offices, both at headquarters and in the regional offices.

Under Mr. Ruckelshaus, the agency was committed to increasing enforcement resources. Though enforcement resources were significantly reduced in 1982 and 1983, resources—both personnel and dollars—began to increase in 1984. Though the resources were not, nor should they have been, expected to be evenly distributed across environmental media, it should be understood that the Superfund program received the lion's share of those increases.

EPA's current enforcement structure has been described as "a kind of Rube Goldberg toy." [124] Program assistant administrators, regional counsels, and regional program division directors may all be involved in an enforcement action. However, at headquarters, all of the various enforcement authorities converge only at the Deputy Administrator level. The Deputy Administrator, however, has neither the staff nor the time nor the operational expertise to be involved except in oversight, generally, or on a particular issue, specifically. In the regional offices, enforcement issues converge at the level of the Deputy Regional Administrator (DRA)—who suffers from lack of staff and time, as does EPA's Deputy Administrator. However, the DRA may, in fact, have more day-to-day operational involvement than does the agency's Deputy Administrator. Given DRA involvement and since regional counsels and enforcement attorneys both reside within the offices of Regional Counsel, the regions may, in fact, be in a better position to handle enforcement cases than the more fragmented headquarters enforcement-related offices.

H. Texas Eastern Enforcement

By the time that EPA negotiated a PCB pipeline condensate program with TEGPL, EPA's Office of Enforcement had been disbanded. Consequently, the TSCA technical enforcement staff was transferred to the Office of Pesticides and Toxic Substances (OPTS), where it was reestablished as the Office of Compliance Monitoring. It was this group, not the enforcement attorneys, which had primary responsibility for negotiating, and then for overseeing the Texas Eastern remediation program.

In this context, it is again important to note that the TSCA program is a national, not a State, program. OPTS staff who implement TSCA, enforcement or otherwise, are not oriented toward involving states in their work. It is also unlikely that they would bring other EPA offices (such as OECM or the Office of Solid Waste and Emergency Response) into an issue without specific cause. Staff of EPA's Office of Pesticides and Toxic Substances informed the Subcommittee staff that it was their belief that the separation of OCM from the enforcement attorneys in OECM has led to delays in communications with the lawyers and in formally bringing them into the case. [125] OECM staff have advised the Subcommittee staff similarly.[126]

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[124] Joel A. Mintz, "EPA Enforcement: Critical Assessment Yields Mixed Review," *The Environmental Forum*, November 1984, p. 14.

It should also be noted that the regions may undertake enforcement actions without involving, or even informing, headquarters program staff. This was evident when Region IX (San Francisco) negotiated a $125,000 civil penalty with Transwestern Pipeline for the disposal of pipeline fluids into earthen pits in Arizona. The TSCA program's enforcement staff first found out about this situation well after the Region initiated action (a company official telephoned the OCM director in an effort to avoid payment of the penalty). If headquarters OECM was aware of Region IX's action, it never informed OCM, either.

The clear evidence that the Office of Pesticides and Toxic Substance's Office of Compliance Monitoring avoided discussion with its former counterparts, the enforcement attorneys, is in the June 30, 1986, memorandum from the OPTS Assistant Administrator to the Acting Assistant Administrator of OECM. Ten months after OCM learned of TEGPL's disposal of PCB-laden pipeline fluids into pits and after repeated attempts by OCM to convince TEGPL to be more forthcoming, the enforcement attorneys were asked to join the case.

The attorneys, too, chose to wait for further company-generated information. They, too, kept the affected EPA regions and the states in the dark. An internal dispute broke out within OECM as to whether or not to proceed with a criminal investigation. When the Subcommittee first became involved in this oversight, the involved OECM offices were in disarray, if not in dissension. OECM seemed unsure of its next steps. The Office of Waste Programs Enforcement of the Office of Solid Waste and Emergency Response—another office headed by another Assistant Administrator—was finally brought into the matter in December 1986, when it became clear the RCRA violations may have occurred and that Superfund authorities may have had to have been invoked. Cross fertilization among and between all of the relevant headquarters agency offices first began to occur 15 months after it was learned that PCB contaminated waste was regularly disposed of in unlined pits. It would be another three months before EPA's regions and the states were brought into the case—and only because of a news leak which appeared in the press on February 21, 1987.

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[125] Telephone conversation, June 1987.

[126] Meeting with OECM staff, March 1987.

VI. THE AGREEMENT IN PRINCIPLE BETWEEN TEXAS EASTERN AND EPA FOR CLEANUP

A. The Agreement Generally

On November 9, Texas Eastern, the Department of Justice, and EPA reached an Agreement in Principle for evaluation and cleanup of the sites contaminated by condensate disposal. The Agreement in Principle is intended to document the principal provisions of a settlement agreement between the parties, on which the parties believe they have reached essential agreement.[127] The plan is for the settlement agreement to be embodied in a Consent Decree.[128] The Agreement in Principle is not intended to constitute a legally binding agreement between the parties or an admission of fact or law by Texas Eastern.[129]

In addition to a November 9, 1987 letter from Texas Eastern, [130] press releases by EPA[131] and Texas Eastern, [132] and a Fact Sheet compiled by Texas Eastern on that date,[133] the Subcommittee requested and received from EPA a copy of the Agreement in Principle itself. The Agreement in Principle, however, was provided to the Subcommittee by EPA on the condition that the text would not be disclosed prior to the filing of the Consent Decree.[134] EPA staff indicated, however, that it would not be inappropriate or a violation of the nondisclosure condition for the report to describe and cite provisions of the Agreement in Principle.

Texas Eastern initially anticipated that the final decree would be filed by the end of 1987.[135] According to EPA, the decree will be filed in Federal District Court in Houston, Texas. It is not anticipated that the Consent Decree would preclude further criminal enforcement by the Federal Government, if deemed appropriate, or actions by States or private parties. It is also standard practice for such a decree to be subject to public comment for at least 30 days.

The Agreement in Principle calls for addressing 89 sites in 14 States. The company estimates the cleanup envisioned by the Agreement will cost about $400 million. The Agreement in Principle envisions completion of cleanup within 10 years.[136] The company admitted, however, that more site characterization would be necessary to calculate a more certain cleanup cost figure.[137]

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[127] Agreement in Principle at 1.

[128] Ibid.

[129] Ibid. at 2.

[130] See Appendix at Exhibit F.

[131] See Appendix at Exhibit N.

[132] See Appendix at Exhibit G.

[133] See Appendix at Exhibit H.

[134] Although the Subcommittee has complied with EPA's requirement not to disclose the Agreement in Principle, the Subcommittee does so with reservation. The Subcommittee believes that disclosure of the document to State officials, interested citizens, and others could provide a beneficial debate on its merits. Without violating the agreement with EPA, the Subcommittee hopes that the textual summary of the document, combined with the analysis in the Conclusions section of this report, will help to serve this beneficial purpose.

[135] Letter from Costello to Chairman, November 9, 1987 at 2.

The Agreement calls for Texas Eastern to pay a civil penalty of $15 million, and reimburse EPA for its costs associated with the case.[138] This would be the largest penalty EPA has ever imposed.[139] EPA staff indicated in a November 9, 1987 briefing that agency staff had come up with a theoretical estimate for a maximum penalty of $83 million. This estimate was fairly rough, however, and was based on the assumption that only one TSCA violation had occurred at each site each day since 1978, the year the PCB rule went into effect. The estimate applied the maximum TSCA penalty of $25,000 per violation.[140] EPA staff indicated that an actual administrative fine might have been limited to only one-third of the sites, however, since dumping at many of them might have stopped prior to TSCA's enactment and implementation.

The Agreement in Principle calls for EPA's direct costs associated with the case to be reimbursed up to $1.5 million.[141] The Agreement also would require Texas Eastern to pay for the costs of a third-party contractor to oversee the cleanup work in an amount not to exceed $14 million.[142] The cap on the third-party contractor costs could increase to $18 million if additional sites were found.[143] Texas Eastern would be subject, under the Agreement in Principle, to stipulated penalties of up to $7,500 per day for failure to comply with the consent decree.[144]

For cleanup purposes, remediation and priority of cleanup, the Agreement in Principle calls for dividing the 89 sites into three classes.[145]

First are the A-1 sites. These are sites containing concentrations of PCBs exceeding agreed upon cleanup levels which in most cases are 10 or 25 ppm of PCBs. Forty-nine sites have been classified A-1 sites.[146]

In December 7, 1987 written response [147] to the Chairman's November 16, 1987 letter to EPA,[148] Assistant Administrator Thomas

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[136] Agreement in Principle at 4, paragraph 3; Texas Eastern News Release, November 9, 1987 at 1.

[137] Ibid.

[138] Agreement in Principle at 3, paragraph 3; EPA Natural Gas Pipeline Task Force Report, November 9, 1987 at 1. The Agreement gives Texas Eastern the alternative option of paying $10 million in 30 days from entering the consent decree, plus $730,000 per year thereafter, until EPA certifies that Texas Eastern has complied with ultimate decree, up to 10 years.

[139] November 9 EPA briefing.

[140] Toxic Substances Control Act, section 16(a)(1), 15 U.S.C. 2615(a)(1).

[141] Agreement in Principle at 7, paragraph 18.

[142] Ibid. at 8, paragraph 21.

[143] Ibid.

[144] Ibid. at 8, paragraph 25.

[145] Ibid. at 2; Texas Eastern November 9, 1987 Fact Sheet at 1.

[146] Texas Eastern November 9, 1987 Fact Sheet at 1. The Chairman's November 9, 1987 discussion with Texas Eastern's CEO, Derrill Cody, and subsequent Subcommittee staff discussions with Texas Eastern counsel, indicated that the site in West Amwell, New Jersey was an A-1 site, and would be among the highest priority sites. Texas Eastern Counsel indicated that the West Amwell site would be the sixth site of the first six sites addressed. In November 16, 1987 letters (see Appendix at Exhibits A and B) and November 30, 1987 letters (see Appendix at Exhibits KK and LL) to EPA and Texas Eastern, the Chairman indicated the need for a rigorous cleanup of all affected sites, including two additional New Jersey sites. For EPA's and Texas Eastern's response to the November 30 letter see Appendix at Exhibits MM and NN respectively.

[147] See Appendix at Exhibit J—Attachments A, B, C.

[148] See Appendix at Exhibit A.

Adams indicated the A-1 sites by the following designations or locations: Connellsville, PA; Bedford, PA; Holbrook, PA; Berne, Ohio; Lambertville, NJ; Sarahsville, OH; Chambersburg, PA; Uniontown, PA; Marietta, PA; Bechtelsville, PA; Delmont, PA; Perulack, PA; Entriken, PA; Armagh, PA; Grantville, PA; Shermans Dale, PA; Danville, KY; Union Church, MS; Hope, AR; Owingsville, KY; Kosciusko, MS; Wheelersburg, OH; Barton, AL; Gladeville, TN; Joaquin, TX; LaRose, LA; St. Francisville, LA; Athens, OH; Clinton, MS; Tompkinsville, KY; Linden, NJ; Yazoo, MS; Longview, TX; Castor, LA; Mt. Pleasant, TN; Egypt, MS; Atlanta, TX; New Roads, LA; N. Little Rock, AR; Hanover, NJ; Huntsville, TX; Bernville, PA; White Castle, LA; Lufkin, TX; 24-inch Line W. Red River, LA; 6-inch Line, LA.

Second are A-2 sites. These are sites not expected to contain concentrations of PCBs exceeding agreed upon levels. Twenty-seven sites are classified A-2. According to the previously mentioned December 7, 1987 letter from Thomas Adams, these A-2 sites are as follows: Rockwood, PA; Lebanon, OH; Circleville, OH; Crooksville, OH; Marietta, PA; Donaldson, AR; Bald Knob, AR; Egypt, AR; Fagus, AR; Oran, MO; Lick Creek, IL; 10-inch Line, MO; Norris City, IL; 24-inch Line, E. Red River, LA; Princeton, IN; French Lick, IN; Seymour, IN; Batesville, IN; Blessing, TX; Booth, TX; Mont Belvieu, TX; Billis, LA; Vidor, TX; Opelousas, LA; Accident, MD; Hempstead, TX; Provident City, TX.

Third are A-3 sites. These are sites where there has been no historical PCB use and which are upstream of sites where PCBs were used. There are 13 A-3 sites. According to the December 7, 1987 letter from Thomas Adams, these sites are as follows: Caillou Island, LA; Charco, TX; Grand Chenier, LA; Greenwood Field, LA; Iowa Plant, LA; Lake Providence, LA; Lake Raccourci, LA; Petronilla, TX; Pointe Au Chien, LA; Santa Fe, TX; Thomaston, TX; Tivoli, TX.

EPA staff indicated that specific cleanup schedules had not been agreed to at the time of the November 9, 1987 announcement. EPA staff did indicate that, under the Agreement in Principle, work would be initiated at sites in groups of six. The first six sites had not been determined on the date of announcement.[149]

At A-1 sites, the Agreement in Principle calls for Texas Eastern to characterize PCB concentrations on-site in surface soils, condensate pits, drainage ditch and stream sediments, aquatic biota, subsurface soils near underground liquid storage tanks, and on equipment surfaces.[150] The Agreement in Principle also calls for off-site characterization in surface soils and stream sediments.[151]

Also at A-1 sites, the Agreement in Principle calls for Texas Eastern to clean up on-site PCB contamination to specified PCB levels. Under the Agreement, surface soils would be cleaned to a level of 25 ppm of PCBs in restricted access areas, and 10 ppm in unrestricted access areas.[152] Earthern condensate pits would be cleaned to a level of 25 ppm of PCBs.[153] Excavation, at a minimum, would be done to pit boundaries. Excavation to achieve 25 ppm of PCBs would be limited to 25 feet below the surface or until reaching groundwater or bedrock, which would make further excavation impracticable.[154] Additional excavation of 1 foot of soil below pit bottom would be done if cleanup of 1 ppm PCBs can be achieved by such additional action.[155] Drainage ditches would be cleaned to 5 ppm of PCBs.[156] Equipment surfaces would be cleaned to levels specified in the PCB Cleanup Policy.[157]

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[149] As indicated above, however, Texas Eastern Counsel indicated to the Chairman that West Amwell, New Jersey was sixth among the first six.

[150] Agreement in Principle at 4, paragraph 5; Texas Eastern Fact Sheet at 2.

[151] Agreement in Principle at 6, paragraph 6.

[152] Agreement in Principle at 4-5, paragraph 6. Texas Eastern Fact Sheet at 2.

It should be noted that the EPA negotiators achieved in the Agreement in Principle the levels of PCB cleanup which the agency set in its Spills Cleanup Policy.[158] However, the Spills Cleanup Policy does not, itself, apply to the Texas Eastern situation. The Subcommittee staff has been informed that the 10 ppm and 25 ppm PCB cleanup levels are acceptable standards insofar as a major environmental group—Environmental Defense Fund (EDF)—is concerned.[159] The State of New Jersey, however, has standards (though written and not promulgated) which are more stringent than those contained in the EPA-Texas Eastern Agreement in Principle. Its standards are 5 ppm PCB for restricted areas and 1 ppm PCB for unrestricted areas.[160]

At A–2 sites, the Agreement in Principle calls for characterization of PCBs in soils and earthen condensate pits.[161] Testing would be done below pits for PCBs and selected groups of hazardous substances.[162]

At A–3 sites, the Agreement in Principle calls for the absence of PCBs in pipeline liquids to be verified.[163] This would be done by characterizing the concentration of PCBs in pipeline liquids, and by providing information on the historical use of PCBs at or upstream of A–3 sites.[164]

At both A–1 and A–2 sites, the Agreement in Principle calls for characterizing the concentration and extent of PCBs and selected hazardous organic substances in groundwater through the use of groundwater monitoring wells.[165] According to the November 9, 1987 Fact Sheet issued by Texas Eastern, such monitoring would continue for up to 20 years.[166]

At pipeline right-of-way areas, the Agreement in Principle calls for Texas Eastern to characterize the concentration and extent of

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[153] Ibid.

[154] Ibid.

[155] Ibid.

[156] Ibid.

[157] Ibid.

[158] Spills Cleanup Policy, U.S. EPA, 52FR10688, April 2, 1987.

[159] Telephone conversation with EDF staff person, December 8, 1987.

[160] Telephone conversation with staff, New Jersey Department of Environmental Protection, December 14, 1987.

[161] Agreement in Principle at 5–6, paragraph 8; Texas Eastern November 9, 1987 Fact Sheet at 2.

[162] Ibid.

[163] Texas Eastern Fact Sheet at 2.

[164] Agreement in Principle at 6, paragraph 9.

[165] Agreement in Principle at 6, paragraph 11.

[166] Texas Eastern Fact Sheet at 2. A specific provision in the Agreement in Principle that required such monitoring for a specified time period was not found. But it is inferred that Texas Eastern's inclusion of such a time period in the company's Fact Sheet indicates the company's intention to negotiate or agree to such a time period.

PCBs in soil adjacent to specified pipeline equipment and on equipment surfaces.[167]

Under the Agreement in Principle, Texas Eastern would be required to provide the results of its characterization program to EPA and the States.[168] In the November 9, 1987 briefing, EPA staff indicated that the Agreement in Principle did not contain specific cleanup schedules. But EPA staff indicated that such schedules were a possibility. EPA staff also indicated that the Agreement in Principle did not envision any epidemiological or health assessments of residents living near sites or on-site employees of Texas Eastern. In the previously mentioned December 7, 1987 response from Assistant Administrator Adams, EPA noted that the Agency "retains its authority to seek additional relief, including the completion of appropriate health assessments, from Texas Eastern." [169]

B. Rights Reserved by the United States

The Agreement in Principle calls for EPA to retain the right to take over all or a portion of any work at a site, if EPA determines that Texas Eastern is not performing the work in compliance with the Consent Decree.[170] The Agreement in Principle also reserves other legal rights for the United States, including its incorporation by reference to a comprehensive Covenant Not To Sue, which lays out the legal rights the Federal Government retains and will forego under the future Consent Decree.[171]

Generally, the Covenant Not To Sue would result in the United States agreeing not to seek civil penalties under TSCA, RCRA, and Superfund for violations that occurred prior to the lodging of the Consent Decree.[172] For RCRA and TSCA violations, or analogous State laws, the Federal Government would also waive its right to seek civil penalties for conditions in existence at the time of entering the Consent Decree.[173] The United States retains the right to sue for future violations of these laws, however, with some limited exceptions.

Where there is imminent and substantial endangerment, the United States would retain the right to spend removal funds under Superfund and seek reimbursement from Texas Eastern. Unless immediate action is necessary, the Federal Government would provide Texas Eastern with 30 days notice to begin the work itself.[174] The United States also would generally reserve its rights under the imminent and substantial endangerment provisions of TSCA, RCRA, and Superfund.[175]

The United States would retain the right under RCRA to compel Texas Eastern to take actions to comply with site closure and post-closure care requirements, pursuant to RCRA or analogous State law.[176] The United States would also reserve the right to compel Texas Eastern to comply with the interim status requirements of RCRA or analogous State laws.[177]

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[167] Agreement in Principle at 6–7, paragraph 13.
[168] Agreement in Principle at 7, paragraph 15; Texas Eastern Fact Sheet at 3.
[169] Letter from Adams to Chairman, December 7, 1987 at 2. See Appendix at Exhibit J.
[170] Agreement in Principle at 15, paragraph 25.
[171] Agreement in Principle at 15, paragraph 24 and Attached Covenant Not To Sue.
[172] Covenant Not To Sue at 1-2, paragraph A.
[173] Ibid.
[174] Ibid. at 3, paragraph C.
[175] Ibid. at 12, paragraph M.

C. CONTROL OF POSSIBLE CONTINUING DISCHARGES

The Agreement in Principle also calls for Texas Eastern to install source controls at all sites to control discharges of liquids from the pipeline, which will eliminate further PCB contamination.[178] The Subcommittee observes that the possibility that further PCB contamination is now occurring is a point that was not raised by either EPA or Texas Eastern at the March 1987 hearing. Nor was it publicly discussed prior to the November 9, 1987 announcement. While it is beneficial that this possibility is being addressed, the failure to disclose this point at an earlier date is troubling.

A key theme of the hearing and press accounts [179] was the failure of EPA and the company to notify the States of the contamination. This concern and a related concern over cooperation with the Subcommittee's ongoing investigation were fully aired in the March hearing.[180] It is unclear whether Texas Eastern and EPA exercised candor about the possibility of continuing discharges with the Subcommittee. It is unclear whether the States were clearly informed about possible continuing discharges at the earliest possible occasion. It is unclear whether State or Federal laws regarding notice of possible continuing discharges have been violated. In a November 23, 1987 letter from the Chairman to Lee Thomas,[181] the Subcommittee sought full disclosure from EPA about the extent and location of such discharges.

In a December 7, 1987 response from Assistant Administrator Thomas Adams,[182] EPA indicated that it first learned of the continuing discharges in April 1987 during settlement discussions. EPA also indicated that affected states were notified of the source control program on November 9, 1987. Adams also indicated that the continuing discharge or venting occurred periodically in three basic situations: (1) shut-down of a pipeline compressor; (2) start-up of a compressor; and (3) removal of a "pig" from the pipeline.[183] Adams also suggested that EPA's review indicated that the venting episodes "may constitute violations of law." [184] Depending on whether the PCBs are being discharged during such ventings at levels exceeding 50 ppm, a TSCA violation may be occurring.[185] EPA indicated that present information does not indicate that RCRA hazardous wastes are being discharged during such venting, however.[186] If a reportable quantity of a hazardous substance were discharged during venting, EPA indicated that a duty under Superfund to notify designated parties would exist.[187]

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[176] Ibid. at 9-11, paragraph J.

[177] Ibid. at 11, paragraph K.

[178] Texas Eastern November 9, 1987 Fact Sheet at 3. Agreement in Principle at 4, paragraph 4.

[179] "Data Show EPA Delayed Warning About PCB," New York Times, March 17, 1987, p. 1.

[180] See, for example, Hearings, pp. 2, 7, 8-9, 17-18, 46, 55-56, 57-58, 59-60, 62, 64, 66-67, 70.

[181] See Appendix at Exhibit D.

[182] See Appendix at Exhibit K.

[183] Ibid.

[184] Ibid. at 2.

[185] Ibid.

[186] Ibid.

D. STATE CONCERNS

EPA staff indicated in the November 9 briefing that the ultimate consent decree would not limit States in their enforcement efforts under State law. At least one State, New Jersey, has indicated a desire to bring such State enforcement actions. New Jersey has also expressed dissatisfaction with the announced details of the Agreement in Principle, and the level of EPA consultation with the State during the Federal negotiation. It is unclear how well EPA succeeded in consulting with the affected States. In the November 9 briefing, EPA staff, however, suggested that States were kept apprised. In followup discussions with EPA staff, it was suggested that no other States have raised problems with the Agreement in Principle.

The previously mentioned December 7, 1987 [188] letter from Assistant Administrator Thomas Adams indicates that the final settlement agreement will not prejudice the right of an affected state regarding Texas Eastern's activities or site conditions. This seems to be borne out by the Agreement in Principle. The Agreement in Principle contains a provision indicating that nothing in the Consent Decree will excuse Texas Eastern from complying with the requirements of all applicable local, State, and Federal regulations.[189] The Agreement in Principle also addresses the situation where Texas Eastern enters into an agreement with or is made subject to an enforceable order issued by a State or other governmental body. Where the work to be performed through such an agreement or order is essentially equivalent to or more stringent than the Consent Decree's requirement's, the Agreement in Principle calls for the parties to negotiate to integrate Texas Eastern's obligations under the Consent Decree and such other order.[190]

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[187] Ibid. At this point in the letter, EPA noted that Texas Eastern takes the position that releases of liquids through venting from its natural gas pipeline are exempted from CERCLA. EPA also noted its disagreement with this position.

[188] See Appendix at Exhibit J. Note that Mr. Adams wrote two responses to the Chairman, both of which were dated December 7. Exhibit K concerned the continuing discharge issue. Exhibit J concerned the Agreement in Principle generally.

[189] Agreement in Principle at 14, paragraph 21.

[190] Agreement in Principle at 14, paragraph 22.

VII. IMPACT OF CLEANUP AND RELATED COSTS ON RATES FOR NATURAL GAS

The November 9, 1987 announcement of the Agreement in Principle indicated that the cost of evaluating and remediating the contaminated areas along the pipeline may be extremely high. The company estimates the cost at $400 million,[191] and indicates that it will seek recovery of such costs from insurance and other claims and through rate recovery mechanisms.[192] Serious concerns may be raised by Texas Eastern's proposed rate recovery of such costs or a component thereof, if they result from violations of law.

Although the company's estimates of the cleanup costs are large, a fundamental principle of the Nation's environmental laws has been to compel the violator of such laws to pay for the costs resulting from such violations. Passing these costs on to gas consumers, if those costs resulted from violation of State and Federal laws, would be inconsistent with that principle.

It is worth noting that Texas Eastern Transmission Corporation's profits exceed the annual average cost of cleanup.[193] In 1986, generally a bad year for the natural gas industry,[194] Texas Eastern Transmission Corporation had an operating profit from natural gas pipelines of $218 million and a net income, after income taxes and dividends on preferred stocks of subsidiaries, of about $152 million.[195] Assuming an annual average cleanup cost of about $40 million, the company's profits, if maintained at or near the 1986 level, would far exceed such remediation costs. This is not to imply, however, that the ability to absorb remediation costs through profits should be determinative of whether to allow rate recovery for costs associated with environmental violations. A company could, for example, finance cleanup costs by floating bonds.

In order to increase rates to its sales and transportation customers, Texas Eastern must obtain the approval of the Federal Energy Regulatory Commission (FERC). In accord with the Natural Gas Act, FERC would then review the basis for the request and can only approve it if it is "just and reasonable." [196] State utility commissions would in turn review any request by the local distribution company customers to allocate their increased costs to end-users.

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[191] However absent a cleanup schedule, articulation of cleanup standards, and the completion of engineering analysis of the sites, it is difficult to view the $400 million as anything but a rough estimate.

[192] Texas Eastern's News Release, November 9, 1987 at 1. See Appendix at Exhibit G.

[193] Texas Eastern Transmission Corporation's 1986 Annual, Financial Highlight Table preceding page 1 and table on page 3.

[194] *Natural Gas Annual 1986*, Vol. I at 1, Energy Information Administration (October 1987).

[195] See note 193, above.

[196] Natural Gas Act, 15 U.S.C. section 717(c).

The Subcommittee, with the assistance of the Library of Congress, examined the question of whether a regulated entity could pass on to ratepayers those costs which result from past violations of the law. Although the Subcommittee did not find a case factually identical to the Texas Eastern situation, there are well established legal and judicial principles under the Natural Gas Act and regulatory laws generally.[197]

Costs are generally allowed to be recovered through rates when such costs have been prudently incurred and are related to the normal economic activities of operating a pipeline. Examples of such costs might include payroll costs related to normal pipeline operations.[198]

The converse is that rate recovery can be denied for costs that result from knowing wrongdoing contrary to the law, from imprudent acts,[199] abuses of discretion, acts unrelated to the normal operation of a utility, or activities done in a wasteful or negligent fashion.[200] Examples of such cost might be capital investments resulting from uncontrolled cost overruns or mismanagement of construction.

Chairman Lautenberg focused on the rate recovery issue in his November 16 letters to EPA,[201] FERC,[202] and Texas Eastern.[203] In the letter to FERC, the Chairman indicated the necessity of compelling Texas Eastern clearly to segregate and delineate costs associated with future rate requests. Only through such specificity can FERC be certain that its cost analysis addresses the question of exactly which costs it will allow or not allow to be translated into rate increases. The Chairman also requested information on past rate recovery of costs related to the contamination and remediation.[204]

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[197] The Subcommittee thanks the American Law Division of the Library of Congress for providing background on rate issues generally. Numerous Supreme Court decisions have interpreted and laid out the general principles of ratemaking under the Natural Gas Act. An instructive and seminal case is *Federal Power Commission* v. *Hope Natural Gas*, 320 U.S. 281 (1944). Decided by the Supreme Court over 40 years ago, this case articulated the approach still utilized for judicial review of rates under the Natural Gas Act. A useful and succint summary of this approach and ratemaking principles generally is also contained in *Regulated Industries in a Nutshell*, authored by Ernest Gellhorn and Richard Pierce (1987).

[198] For a discussion of allowable rate recovery see, for example, the Hope Natural Gas case cited in note 197, as well as some other early Supreme Court ratemaking cases: *Bluefield Water Works & Improvement Co.* v. *Public Service Commission of West Virginia*, 262 U.S. 679 (1923); *Smythe* v. *Ames*, 169 U.S. 466 (1898).

[199] A 1923 U.S. Supreme Court decision, *Missouri ex. rel. Southwestern Bell* v. *Public Service Commission*, articulated the so-called "prudent investment concept." 262 U.S. 276. A footnote in the separate opinion of Justice Brandeis gave some definition to the concept, as the following excerpt shows: "The term [prudent investment] is applied for the purpose of excluding [from a rate base] what might be found to be dishonest or obviously wasteful or imprudent expenditures." Ibid. at 289 n. 1.

[200] The Supreme Court articulated this negligence/waste concept in a 1935 decision, *West Ohio Gas* v. *Public Utilities Commission of Ohio*, 294 U.S. 63. The Court observed that "[a] public utility will not be permited to include negligent or wasteful losses among its operating charges." Ibid. at 68.

[201] See Appendix at Exhibit A: p. 1 of Letter.

[202] See Appendix at Exhibit C for text of Chairman's letter. Also see Appendix at Exhibits L & M for brief responses from FERC indicating that the matter will be investigated.

[203] See Appendix at Exhibit C.

[204] Information from Texas Eastern indicates that the company already has used rate recovery for PCB-related costs. Letter from Cody (Texas Eastern) to Chairman, November 30, 1987 at Attachment C. (See Appendix at Exhibit I). However, it is not clear to what extent those costs are associated with efforts to comply with the law, including the 1982 consent and to what extent, if any, they are associated with the discharge into pits and remediation of those discharges. Since 1981, the company has included for rate recovery about $2.5 million in PCB-relat-

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To address the question of future rates, the Chairman indicated in his letter to EPA that a provision should be included in the final consent decree that clearly states that the decree shall in no way prejudice FERC's determination on the question of passing through these cleanup costs in the form of rates.[205] In the Agency's December 7, 1987 response, Assistant Administrator Adams stated that "[t]he Agency has no intent through [the] settlement to prejudice the ultimate rate determinations of federal or state agencies." [206] Subcommittee staff communications with EPA suggest that during the EPA's negotiations with Texas Eastern over the Agreement in Principle, the involved EPA staff did not raise the matter of how the Agreement could affect the ultimate rate determination by FERC.

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ed operating and maintenance expenses. Ibid. PCB-related capital costs in Texas Eastern's rate base beginning in 1974, total about $13.5 million. Ibid. These capital costs will be recovered through depreciation and amortization expense over the depreciable life of the property. Ibid.

[205] Letter from Chairman to Lee Thomas, November 16, 1987 at 1. See Appendix at Exhibit A.

[206] Letter from Adams to Chairman December 7, 1987, at 2. See Appendix at Exhibit J.

VIII. CONCLUSIONS

As was stated in the Introduction, the Subcommittee based its investigation on materials provided to it by Texas Eastern, EPA, and other identified parties. The Subcommittee attempted to obtain those documents and information necessary to understand the facts and issues presented by this situation. Although the Subcommittee does not represent that it possesses all the possible materials and information potentially relevant to this matter, the Subcommittee has made a good faith effort to obtain sufficient materials, and staff have indicated to EPA and Texas Eastern an ongoing interest in and willingness to review any materials either wanted to provide the Subcommittee. Although its oversight jurisdiction may involve evaluation and conclusions related to compliance with environmental laws, the Subcommittee obviously does not view or represent itself as a forum for adjudicating civil or criminal liability. In conducting the investigation, the Subcommittee was exercising its broad environmental oversight jurisdiction as well as its legislative jurisdiction over Superfund. With this objective and these parameters, and based on the information reviewed by the Subcommittee, in the opinion of the Subcommittee the following conclusions can be drawn:

1. *Violations occurred of the marking, storage, and disposal requirements of the PCB rule promulgated under the Toxic Substances Control Act (TSCA).*

In his testimony before the Subcommittee, a Texas Eastern official admitted that the company continued its practice of disposing of PCB-contaminated pipeline condensates into unpermitted, unlined earthen pits through 1984. The PCB Rule precluded such action subsequent to May 31, 1978. In 1985, Transwestern Pipeline Company, a TEGPL sister company, received a civil penalty of $125,000 for illegal disposal of pipeline fluids into scrubber pits in Arizona. In 1985 Texas Eastern Transmission Corporation received a Notice of Noncompliance from EPA for violations of the storage and labelling requirements of the PCB Rule at its Delmont, Pennsylvania compressor station.

2. *Violations of the marking, storage, and disposal requirements of the PCB rule under TSCA may have been knowing violations under TSCA.*

The Subcommittee is not in possession of documents, nor did it take testimony showing specifically how or by whom decisions were made to discharge PCB-contaminated liquids into unpermitted, unlined earthen pits. Nor does the Subcommittee have evidence specifically of how and by whom such discharges were actually done.

But as a recent line of Federal cases indicates,[207] a knowing violation of TSCA, which under the statute creates criminal liability,[208] consists of intentionally causing disposal of substances known to be or to contain PCBs, where such disposal is unlawful under TSCA and the PCB rule. Specific intent to violate the law is not required. In addition, a corporation can be convicted for the criminal acts of its agents, where such agents are acting within the scope of employment.[209] A recent line of cases [210] suggests that a corporation might also be imputed to have committed a knowing violation through collective knowledge of various employees, who each possess a different element of those required to form a knowing violation. Corporate knowledge, in such cases, has been deemed by some courts to be the totality of what all employees know. Consider, for example, Corporation A, whose employees include Employees X and Y. Employee X knows that a substance contains PCBs. Employee Y does not know what the substance contains, but is directed by X to discharge the materials in a manner which ultimately turns out to be violative of the PCB rule. Y intentionally discharges the substance in this manner. Assuming such employees are acting within the scope of their employment, Corporation A could be deemed to have committed a knowing violation of TSCA by virtue of the totality of knowledge of X and Y.

3. Relevant documents of Texas Eastern Gas Pipeline Company demonstrated an in-depth knowledge of how to comply with the marking, storage, and disposal requirements of the PCB rule promulgated under the Toxic Substances Control Act.

Responding on June 12, 1981 to an EPA information request, and in subsequent correspondence, Texas Eastern Gas Pipeline Company provided the agency with company internal memoranda relating to compliance with the rule. These memoranda demonstrated familiarity with the hazards posed by polychlorinated biphenyls, as well as an in-depth knowledge of how, and the existence of practices in place with which to comply with the regulations.

The internal memoranda were quite detailed and specific regarding health and safety matters. These memoranda go so far as to state that if PCBs are spilled on the ground they, and the affected soils, must be scooped up and placed in barrels for disposal. Any rags which may have become contaminated with PCBs would also have to be placed into barrels for disposal. Goggles and other safety gear were required to be worn by workers when handling PCBs. The specifications for disposal barrels and for containment areas are spelled out.

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[207] The major Federal cases suggesting this definition of "knowing" violation include the following: *U.S.* v *Pacific Hide and Fur Depot, Inc.*, 768 F.2d 1096 (9th Cir. 1985); *U.S.* v. *Ward* 676 F.2d 94 (4th Cir.), *cert. den'd*, 495 U.S. 835 (1982). See also *U.S.* v. *Hayes International Corp.*, 786 F. 2d 1499 (11th Cir. 1986), which makes a similar interpretation of the Solid Waste Disposal Act requirements.

[208] Section 16(b) of TSCA establishes criminal penalties for knowing or willfull violations of specified provisions of TSCA, including section 6 of TSCA, and rules promulgated under section 6, which would include the PCB rule.

[209] A recent Federal appellate case articulating this principle is *U.S.* v. *Cincotta*, 689 F.2d 238, 241 (1st Cir. 1982). The previously noted *Hayes International Case*, (supra at note 207) although not explicitly articulating the principle is another example of the point. In that case, a corporation was found to be criminally liable under RCRA for acts of its employee. For a general discussion see also 18B Am Jur. 2d, Corporations sections 2134, 2136. Also potentially relevant in the analysis of corporate liability are the general provisions of the U.S. Code on Crimes. Section 2 of Title 18 of the Code states,

> (a) Whoever commits an offense against the United States or aids, abets, conusels, commands, induces or procures its commission, is punishable as a principle.
>
> (b) Whoever willfully causes an act to be done which if directly performed by him or another would be an offense against the United States, is punishable as a principal

[210] See, *U.S.* v. *Bank of New England*, No. 86-1334 (1st Cir. June 10, 1987) (Slip Opinion); *U.S.* v. *T.I.M.E.—D.C., Inc.* 381 F. Supp. 730 (W.D. W. Va. 1974).

4. Texas Eastern should have been more forthright with the Environmental Protection Agency when it reported having disposed of its PCB-contaminated condensate.

TEGPL reported the disposal of only 6.2 percent of the pipeline fluids which it removed from its system. It omitted details about the remaining 93.8 percent.

5. Violations of Superfund notification duties may have occurred.

Enacted in December 1980, section 103 of the original Superfund provisions (CERCLA) places notification duties on those who release or dispose of hazardous substances. Section 103(a) requires such persons immediately to notify the National Response Center, if a specified threshold amount of hazardous substances are released.[211] If no exemption [212] to the notification requirement of section 103(a) applies, and PCBs or other hazardous substances were released in sufficient amounts, failure to notify the National Response Center would constitute a violation of the law. It is unclear whether sufficient quantities of hazardous substances were discharged, based on the threshold amounts in effect during the time of release.

Another relevant provision is section 103(c) of Superfund. Within 180 days following the December 1980 enactment of Superfund, those who owned or operated facilities where specified hazardous substances were stored, treated, or disposed were required to notify the Administrator of EPA of the existence of such a facility. Such notice was required to specify the amount and type of hazardous substances to be found there, and any known, suspected, or likely releases of such substances from such facility. The notification requirement under section 103(c) applies only to hazardous substances with the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act. During the applicable time, it appears that PCBs were not part of this notification requirement. But if section 3001 hazardous substances were contained in the pipeline fluids, unless some other exemption applied, section 103(c) would have created a legal requirement to notify EPA, as early as 1981, of discharges into pits.

It should also be noted that title III of SARA, which became effective in October 1986 created additional notification duties for releases, unless such releases result in exposure to persons solely within the site or sites on which a facility is located. These additional notification requirements apply to the hazardous substances for which notice was already required under section 103(a) of Superfund and to those substances listed as "extremely hazardous" under section 302(a) of title III. The additional requirements mandate that facility owners or operators notify local emergency planning committees and State emergency response commissions in areas and states likely to be affected by the release.

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[211] For PCBs that specified amount since enactment of CERCLA has been 10 pounds in a 24 hour period. See section 102 of CERCLA as well as the relevant regulations under section 311 of the Clean Water Act and sections 102 and 103 of CERCLA: 40 C.F.R. sections 117.3, 302.4, 302.5 (1987).

[212] The Subcommittee notes from EPA's December 7, 1987 letter to the Chairman, Texas Eastern's apparent position about the possible application to pipeline venting of the natural gas liquids exemption of section 101(14) of CERCLA. (See Exhibit K at 2.) This exemption excludes such liquids from the definition of hazardous substances. The Subcommittee notes, however, that Assistant Administrator Adams stated, "The Agency does not agree with the company's position on this issue." Ibid.

6. Texas Eastern did not satisfactorily substantiate that EPA staff, prior to August 29, 1985, was aware of a practice of disposing pipeline fluids into pits.

TEGPL officials informed the Subcommittee that they believed that agency staff, prior to August 29, 1985, were aware of the natural gas pipeline industry's traditional practice of disposing of pipeline fluids into scrubber pits at compressor stations. These were serious allegations. The Subcommittee staff sought to determine whether or not EPA and Texas Eastern had discussed the issue of pit disposal of PCB-contaminated condensates, including any written documentation to that effect.

No other witnesses to such a discussion were found. The Subcommittee staff found no documents that adequately substantiate Texas Eastern's assertion. The only reference to scrubber pits in any provided documentation was an obscure reference with regard to the Transwestern Pipeline Company. The notion that this obscure reference should be deemed to be notice to EPA that pits were regularly used by Transwestern, let alone by Texas Eastern, to dispose of its contaminated pipeline condensates is not persuasive.

7. EPA failed in its responsibility to understand adequately the industry it was regulating. The Agency should have discovered the Texas Eastern Gas Pipeline dumping long before it did.

The company states that the use of earthen disposal pits was a traditional industry practice. Whether it was or not, the company reported to EPA that it was phasing in diffusers and collection tanks for condensate removal. An obvious question would have been, "How do you collect and store condensate where there are no diffusers and collection tanks?" The answer to that question would have probably led to the discovery of the pits. It apparently was not asked.

8. The Office of Compliance Monitoring (OCM) in the Office of Pesticides and Toxic Substances (OPTS) failed to review satisfactorily the data contained in reports submitted by Texas Eastern under the pipeline PCB-Condensate remediation program.

The Office of Compliance Monitoring regularly received from the company reports required under the remediation program. If those reports were, in fact, reviewed, such review was not at all thorough. Regular, consistent, examination of the Texas Eastern reports should have included a mass balance to determine whether the company reported having disposed of as much condensate as it had reported having removed from its system.

Had OCM performed a mass balance upon receiving the earliest of Texas Eastern's reports it would have been alerted at the beginning of the discrepancy between the amount of condensate removed and the amount it disposed of. Presumably, had OCM observed that discrepancy it would have asked the pertinent questions which would have led to the discovery of the pits three years prior to their eventual discovery in August 1985.

Once having learned early on of the existence of the disposal pits, presumably OCM would have taken early action regarding discovery of the nature and extent of the PCB contamination and would have required cleanup at that time.

9. The ability of the Office of Compliance Monitoring to oversee effectively the pipeline remediation program and to investigate the nature and extent of contamination once the existence of the pits was known was severely hampered by significant reductions in its resources during a crucial period related to the pipeline program.

The Office of Compliance Monitoring predecessor office, the Office of Pesticides and Toxic Enforcement, had 30 FTEs and $1,568,600 in extramural (or contract) funds in 1981, the year PCBs in pipeline condensates were discovered. It was also the year of a major pipeline survey which determined that Texas Eastern's pipeline exceeded the limits of the PCB Rule. OCM also began to establish, with Texas Eastern, a PCB-remediation program in 1981. By 1982, the remediation program was in place and a consent order and agreement were signed by EPA and TEGPL.

The pipeline program, it should be noted, was only one of many issues for which OCM and its predecessor office was responsible. During the period 1981–1985, revisions to the PCB Rule were made, placing additional strain on OCM's resources.

The pipeline remediation program, being conducted on a national basis out of headquarters EPA, received no backup assistance from EPA's regional offices.

While OCM's resources were reduced in 1982 from the 30 FTEs of 1981 to 19.9 FTEs and from $1,568,600 in 1981 extramural funds down to $927,100 (a reduction of $641,500), the combination of added responsibilities and drastically reduced resources began to take a toll. The effect on EPA's enforcement program through those years has, in general, been well documented. OCM was impaired in its ability to perform its day-to-day responsibilities, having lost approximately one-third of its staff and almost 60 percent of its contract funds between 1981 and 1982. The pipeline program, only one of OCM's many responsibilities, was most certainly negatively affected as well.

OCM's response was to rely on a company with whom, in the opinion of OCM staff, a trust relationship had developed in the course of negotiating the remediation program. The company was relied upon to comply with the PCB Rule and its agreed upon sampling and condensate removal program. As agency officials who testified before the Subcommittee stated, regulatory agencies and the Executive Branch, in general, often rely on the cooperation of the regulated community for the collection of data and for other purposes. OCM staff, in the face of severely dwindling resources, placed even more reliance on Texas Eastern than was prudent.

OCM staff, working on numerous other matters, apparently assumed that Texas Eastern's quarterly reports were accurate and in accordance with the agreed upon remediation program without rigorously reviewing them. These staff lulled themselves in a sense of security based upon the positive experience they had had in working with TEGPL on this issue. Within the diminution of resources, OCM relied on TEGPL not to break the trust. At the same time, OCM staff took the path of least resistance and accepted, without adequate review, Texas Eastern's data as being in compliance with the company's previous commitment and with the PCB Rule.

The resource problem was further compounded in 1983 and 1984. FTEs were reduced to 14.1 in 1983 and allowed to rise only to 14.3 in 1984. The FTE and extramural levels began to rise in 1985, but even for 1987 they remained below the 1981 level.

OCM staff's reliance on Texas Eastern is explained in part by OCM's resource situation and the relationship which had developed between the staff and the company. Undoubtedly, OCM staff were concerned that the law be adhered to and that Texas Eastern meet the commitments to which it agreed. The OCM staff must be faulted, however, for being overly reliant on the company and for its failure to adequately review the company's submissions.

10. Had EPA utilized technology to overcome its resource constraints, its ability to have performed a mass balance on Texas Eastern's data submissions could have detected, early in the program, the failure of TEGPL to dispose of properly its PCB-contaminated condensates.

EPA receives numerous reports from corporations each day. Historically, companies have complained that the reports which they submit often go unread and are "placed on the shelf." Were the agency to possess equipment capable of scanning reports and flagging violations of parameters, its enforcement effort would be markedly improved. Even though its human resources had severely diminished its ability to review TEGPL's data, appropriate equipment may have led to discovery of the disposal pits.

11. The EPA team which negotiated the November 9, 1987 agreement in principle with Texas Eastern was unprepared to understand or to address issues which might have had an impact on a ratemaking case brought before the Federal Energy Regulatory Commission (FERC) by Texas Eastern.

The Environmental Protection agency, in its dealings with a party to an enforcement case, has an obligation to be mindful of ratemaking and other issues unique to a potentially responsible party (PRP). EPA should seek the advice of and coordinate with other agencies having expertise and an interest in a particular industry. If EPA does not take such steps, it could be at a serious disadvantage in its dealings and negotiations with the PRP. The ratepayer is dependent upon EPA to avoid concessions that could prejudice the interest of consumers. EPA's awareness of this critical issue appears to have been lacking.

12. The structure of the Environmental Protection Agency's enforcement program is largely responsible for the Agency's failure to move quickly once the existence of disposal pits came to its attention.

When the Office of Enforcement was reorganized, the technical staff was transferred to their respective programs, both at headquarters EPA and the regional offices. At the time of TEGPL's disclosure of the disposal pits in 1985 the Office of Compliance Monitoring, within the Office of Pesticides and Toxic Substances, was composed of technical staff who had previously served in the former Office of Enforcement; and the attorneys who had served in the previous Office of Enforcement were serving at headquarters in the Office of Enforcement and Compliance Monitoring (OECM) and in the regions in the Offices of Regional Counsel.

When, in August 1985, OCM staff first learned of the existence of the disposal pits, they continued to seek information from TEGPL. The OCM personnel became more suspicious in November 1985 when Texas Eastern informed them that it had retained a known environmental consultant to sample a number of pits and to characterize the extent of contamination, if any. Yet, OCM did not seek assistance of OECM attorneys. It also did not apprise OECM of the situation. Rather, OCM continued to wait for TEGPL and its consultant to report on the sample findings.

OCM served under the Assistant Administrator for Pesticides and Toxic Substances. OECM was headed by its own Assistant Administrator. It should be noted that OCM and its counterpart attorneys were physically separated at headquarters, as they reside in separate buildings. The Environmental Protection agency has long been known as a "turf oriented" institution. Because of those factors, it should come as no surprise that the technical enforcement staff and the enforcement attorneys did not work together from the moment it became known that Texas Eastern was disposing of its PCB-contaminated pipeline wastes into unpermitted disposal pits. The Subcommittee staff in its investigation, was informed by present and past enforcement staff that it is their belief that if OCM and its counterpart enforcement attorneys had worked together under the same assistant administrator, the likelihood is that the attorneys would have been brought into the matter sooner and, presumably, the issues would have been pursued much sooner.

As it was, the Assistant Administrator for Pesticides and Toxic Substances first informed the acting Assistant Administrator for Enforcement and Compliance Monitoring of the Texas Eastern issue of June 30, 1986—a full 10 months after TEGPL's disclosure of the pits' existence.

That OECM dragged its feet, waiting for the Texas Eastern consultant to provide additional information, is difficult to understand. However, it is believed that, had the OCM technical staff and the OECM enforcement attorneys remained together within the same institution, their activities would have been mutually supportive and the strong probability is that this issue would have been addressed much sooner.

13. OCM personnel apparently were not aware that Texas Eastern used earthen pits in which to dispose of pipeline wastes prior to the company's disclosure of August 29, 1985.

While it is believed that EPA *should have* discovered Texas Eastern's use of earthen pits long before August 29, 1985, Texas Eastern's allegation that EPA *was in fact aware* of the company's use of earthen pits before August 29, 1985 is not persuasive. As was indicated in conclusion 6, the claim was not satisfactorily substantiated. The Subcommittee received numerous documents to determine whether or not the EPA was aware, and condoned the use of the disposal pits. None of the documents reviewed by the Subcommittee persuasively demonstrate that OCM staff actually knew that TEGPL used disposal pits prior to installing diffusers and collection tanks.

14. EPA failed to provide expeditious notice to States, other governmental entities, and affected citizens of possible contamination. While EPA may have violated legal notification duties, regardless of such legal duties, the Agency had an obligation to provide such notice.

During the hearing, citizens, State, and local officials expressed concern that EPA had failed to make them aware of the possible contamination in anything resembling an expeditious manner. While this failure may not have been unlawful under existing notification requirements and regulations, in matters such as these, EPA should provide expeditious notification, regardless of legal or regulatory duties.

To understand EPA's general legal duties, one must examine section 103 of Superfund and the implementing regulations. As discussed above in conclusion 5, section 103(a) requires expeditious notice to the National Response Center of releases of hazardous substances in quantities equal to or greater than threshold amounts. The National Response Center, in turn, is required expeditiously to provide notice to all appropriate government agencies, including the Governor of any affected state.

When EPA was informed of the release of PCB-contaminated condensates in 1985, a question arose whether it had a legal duty under section 103(a) to notify affected States. It should be noted that section 103(a) technically places the notification duty on the National Response Center. But EPA, as a member of the National Response Team, would appear to have a duty by virtue of regulation,[213] if not simply common sense, at least to assure that the National Response Center is notified of such information. It appears that EPA did not assure that the National Response Center was notified, and it is clear that the affected States were not notified expeditiously. Nonetheless, it also appears that section 103(a) was not violated, since the provision applies to information about releases of specified sizes and duration. These quantities and duration (a 24-hour period) are specified by regulation.[214] For PCBs, notification requirements would not be triggered unless 10 pounds had been released in a 24-hour period. Given that EPA became aware of large but unspecified volumes of contaminated condensates discharges periodically over many years, section 103(a) would not seem to apply.

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[213] See 40 C.F.R. section 300.23(d) (1987). This provision of the National Contingency Plan appears to place a duty on EPA to report releases at least to the National Response Center.

[214] 40 C.F.R. sections 302.4, 302.5 (1987). See also Clean Water Act regulations at 40 C.F.R. section 117 (1987.)

Assuming that section 103(a) did not create a duty on EPA, another provision, section 103(c) still might have applied. As discussed above in conclusion 5, section 103(c) creates obligations with respect to past releases by owners or operators of facilities where certain hazardous wastes have been disposed. These hazardous wastes are defined here as having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act. Such facility owners or operators are required to notify EPA directly. The Administrator of EPA is then required to notify the affected State agency, or any department designated by the Governor to receive such notice, of the existence of such facility.

Given the way section 103(c) defines hazardous wastes, it would appear that during the applicable time, PCBs were not part of this notification requirement. But it might apply to other substances that may be or were contained in the condensates. While the information provided to EPA in 1985 did not specify other types of hazardous substances covered by section 103(c), it did not rule out their possible presence. Recall that the November 1985 letter from TEGPL to EPA stated, "During our August 29, 1985 meeting in your office, we discussed the historic practice of the gas pipeline industry of using earthen pits for disposal of *waste liquids* (emphasis added)." [215] Although the letter does not specify that no Solid Waste Disposal Act section 3001 wastes were contained in the pits, it is unclear why EPA would feel comfortable with a conclusion that no such wastes were present. As is suggested by the Agreement in Principle, EPA staff, and the supporting materials to EPA's November 9, 1987 press release, hazardous substances other than PCBs appear to be present at some of the sites.

Although this analysis of section 103(c) duties leaves some questions unanswered, it appears EPA may have violated a legal duty to notify States of information under section 103(c). EPA should have made a determination whether hazardous substances as defined by section 103(c), were present, regardless of this duty. But given these notification responsibilities, EPA had a legal obligation to determine whether 103(c) specifically applied.

A final point here is that EPA's duties to notify the States and public should not be viewed as contingent upon legal obligations alone. Whether or not EPA failed to comply with Superfund requirements, it failed to comply with a common sense notion of the Agency's mission. An Agency charged with protecting the environment should not sit on information for 18 months about possible contamination.

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[215] Letter from Cohagan to Seitz, November 19, 1985, at 1. See Appendix at Exhibit Z.

15. Rigorous cleanup schedules and standards must be applied to the remediation of the contamination along the pipeline. But the Agreement in Principle, although not without some virtues, does not appear to assure this result with respect to standards and does not provide details of schedules.

The American people and the affected States deserve an exemplary cleanup of the contamination along the pipeline. The cleanup should be expeditious and stringent. It should protect health and the environment to the maximum extent possible under applicable State and Federal laws.

The Agreement in Principle, although not without merit, raises some questions by what it says, and others by what it does not state. Certainly, achieving the highest penalty in the history of EPA is not to be disregarded. Reserving the government's right to use Superfund money for emergency actions is a valuable tool, as is the reservation of emergency authorities under TSCA and RCRA. The Agreement in Principle's additional retention of governmental legal rights under RCRA or analogous State laws of closure, post-closure, and interim status requirements also is significant. This reservation of rights under RCRA tends to build RCRA and analogous State law cleanup standards into the remediation. If Texas Eastern knows at the outset that it will be subject to such RCRA requirements through future suits, it has the incentive to clean up sites in a way that will meet those requirements.

The Agreement of Principle is deficient in some respects. First, although it applies the most stringent Federal PCB standard, and does not excuse Texas Eastern from complying with more stringent applicable State law, it does not require this result. Although not required to do so, the agreement could for example, have employed the new approach taken by section 121(d) of Superfund, the cleanup standards provision. Specifically, the agreement could have put the burden on the company to apply or seek waiver from more stringent State cleanup standards, where such standards are legally Applicable or Relevant and Appropriate Requirements (so-called ARARs). Such standards may ultimately be applied if a State reaches an agreement with the company to do so, or successfully compels this result. But this places the burden on the States, not the company.

The Agreement in Principle arguably is deficient with respect to assuring cleanup of hazardous substances other than PCBs. This is the case even though other such substances, including volatile organic chemicals have been identified at some sites.[216] It is commendable that the Agreement makes an attempt to apply strict Federal standards to PCB cleanup. The assumption of the Agreement appears to be that in cleaning up PCBs, Texas Eastern will also achieve cleanup of other hazardous wastes that have been found at the sites. The Agreement in Principle does not appear to foreclose requiring cleanup of such other substances individually, and it does require testing for such substances. But it does not set out a comprehensive plan for remediation of such substances. If the PCBs are ultimately found not to have migrated as far as other possible hazardous substances, cleaning soil with PCBs may not assure adequate cleanup of these other substances.

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[216] Some limited information on other substances present is included in Table 1 of the materials EPA distributed November 9, 1987 with its press release. See Appendix at Exhibit N. EPA staff have also indicated the possible presence of other hazardous substances, including volatile organic chemicals, although precise quantities are not apparently known for each site.

The Agreement in Principle also does not address the question of off-site cleanup or groundwater cleanup. To its credit, the agreement does require characterization for PCBs in off-site areas at A-1 sites. It requires, for a representative number of off-site locations at A-1 sites, sampling for specified other substances. And for both A-1 and A-2 sites, it requires ground water characterization for PCBs and other substances. But the agreement is silent on how, if necessary, actual cleanup should occur. This silence may result from EPA's lack of information about off-site areas and groundwater at this time. But there may be some value in trying to include the previously mentioned Superfund cleanup standards approach in the consent decree. The goal would be to assure that the most stringent State or Federal standard would apply to such areas. In the case of ground water, section 121(d), if properly interpreted, would assure the application of the most stringent cleanup standard known as the maximum contamination level goal. This standard is most protective of health. Even if such provisions are not included in the Consent Decree, they are the most desirable approaches for ultimate cleanup.

The Agreement is silent on the possible question of ultimately listing any of the affected sites on the Superfund National Priorities List. Although it is generally believed now that NPL listing would not be appropriate for the sites, the Agreement might be more thorough by reserving this right to list sites if merited. It is inferred that silence on this point does not waive this right. But explicit articulation would seem to be a useful safeguard on long-term Superfund remedies, if necessary and appropriate.

The Agreement in Principle does not lay out cleanup schedules. Such schedules, however, would provide a basis for measuring performance and achieving cleanup goals.

16. States have an important interest in the remediation.

An important principle of our environmental laws is their respect for more stringent and additional measures required under State law. This principle should not be compromised as EPA attempts to arrive at a national cleanup agreement with Texas Eastern.

It is significant to note that in negotiating an Agreement in Principle with TEGPL, EPA was aware that the PCB cleanup standards in some States, such as New Jersey, were more stringent than the standards that the agency and the company had agreed upon. As noted above, the section 121(d) approach of Superfund was not taken. And EPA did not attempt to provide that any State standard more stringent than the cleanup level agreed to by EPA and TEGPL would apply.[217]

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[217] Telephone conversation with EPA staff, December 14, 1987.

17. Health questions may be raised by the contamination.

The contamination along the pipeline occurred for a long period of time and included burning in condensate pits. Burning of PCBs can create doxins. Burning can also create emissions into the air. Throughout the years, on-site workers may have been exposed to pit contents and possible emissions. The proximity of the pits and possible air emissions to residential areas varied. The Mayor of West Amwell indicated concern with what he described as an "unusually high rate of residents with cancer in the area surrounding the Texas Eastern plant." [218] This testimony and that of others suggests an important principle: the right of citizens and workers to know whether they are or have been at risk. According to EPA's December 7, 1987 response to the Chairman, EPA retains the authority to seek health assessments, where site characterization suggests they are appropriate. The Agreement in Principle is silent on this issue, however.

18. Some or all affected States and the Subcommittee may not have been adequately informed by EPA and Texas Eastern of possible continuing discharges of pollutants.

The Subcommittee did not learn of possible continuing PCB discharges until the November 9, 1987 announcement of the Agreement in Principle. It is unclear whether, when, and how many States knew of such possible discharges prior to the announcement. It is also unclear what the scope of such continuing discharges is. Although the Subcommittee has sought a full accounting of such continued discharges, the failure by EPA and Texas Eastern to inform the Subcommittee and possibly the States of this matter prior to November 9, 1987 is of some concern, particularly where EPA stated in a recent letter that it knew of the possible discharges since April 1987.

A key theme in this investigation was the failure of EPA and the company originally to notify the States about the contamination in a timely fashion or a manner required under Federal and State law. This concern was clearly aired in the Subcommittee's hearing, and in press accounts of this matter. It would seem that news of possible continuing discharges of PCBs would merit expeditious and clear notice to the States and the very Subcommittee that criticized the pattern of nondisclosure previously and that was conducting a continuing investigation of the matter. This is particularly true where testimony by both EPA and the company did not indicate to the Subcommittee that such possible continuing discharges were occurring.

19. Texas Eastern, Interstate Gas Pipeline Companies, and similarly regulated entities should not be allowed to pass through in rates direct or indirect costs, if such costs result from violation of environmental laws.

In an unregulated industry, the costs that result from violations of law are borne by the shareholders or are passed on to consumers, if consumers are willing to pay the violating company a higher price, rather than purchase the product from a competitor. The disincentive to violate environmental laws is clear for such an entity. The unregulated entity either depletes corporate resources or risks losing its market share due to higher prices

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[218] Hearings, at p. 65. See also Appendix at Exhibit II for written testimony of Mayor Fulper and attached map indicating with Xs the homes of cancer victims.

But a different analysis may apply to the regulated entity that violates laws. Such regulated entities receive significant benefits from regulation. Those benefits include guaranteed recovery of their prudently incurred costs and the opportunity to earn a healthy rate of return on used and useful plant and equipment. Allowing rate recovery of costs incurred as a result of violations of law subverts both the economic regulatory scheme and the law. Rate recovery by a regulated entity, in effect, becomes a subsidy for violation of the law.

Moreover, to the degree that a regulated interstate gas pipeline enjoys monopoly power, market forces cannot respond to rate increases generally, or to increases due to the passthrough of costs of violating laws in particular. A pipeline's customers, such as local distribution companies, large industrial users, and electric utilities, may not be able to change suppliers because the pipeline's rates have been increased. If no other interstate pipeline serves an area, or if there is insufficient excess capacity on other pipelines serving that area to give customers a choice, those customers are captive to their pipeline supplier's charges. [219]

Additionally, even if those customers may be able to seek interconnection with other pipelines, the added costs of construction of new hookups may not be economical. This may be particularly true for a customer of Texas Eastern, which indicates in its Annual Report, that due to its acquisition of low cost supplies, its prices "were among the lowest in its market area." [220] As a result of such low costs, a pipeline may be able to increase rates modestly to pay for cleanups, without losing customers or market share.

If a company has violated the Nation's environmental laws, then it ought not be allowed to prevail in a rate increase filing, which asserts that the cost of cleanup is just and reasonable in the normal course of business. This principle would apply not only to Texas Eastern and gas pipeline companies, but to similarly situated regulated entities.

It seems clear that FERC could use its discretion to deny rate recovery of costs that result from violations of environmental laws. Costs resulting from past violations of environmental laws should not be deemed to be prudently incurred in the normal course of business. Such a conclusion is supportable by general ratemaking principles. But to assure that our environmental laws are consistently safeguarded, statutory direction may be necessary to assure denial of rate recovery for cases presenting costs resulting from violations of environmental laws.

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[219] To the extent that some pipelines bear the costs of compliance and others not, the violator enjoys an advantage in the form of its profitability, which could make it more attractive than its industry rivals in securing investors' capital.

[220] Texas Eastern Corporation Annual Report at 8.

IX. RECOMMENDATIONS

As was previously stated above, the Subcommittee based its investigation on materials provided to it by Texas Eastern, EPA, and other identified parties. The Subcommittee attempted to obtain those documents and information necessary to understand the facts and issues presented by this situation. Although the Subcommittee does not represent that it possesses all the possible materials and information potentially relevant to this matter, the Subcommittee has made a good faith effort to obtain sufficient materials, and staff have indicated to EPA and Texas Eastern an ongoing interest in and willingness to review any materials either wanted to provide the Subcommittee. Although its oversight jurisdiction may involve evaluation, conclusions, and recommendations related to compliance with environmental laws, the Subcommittee does not view or represent itself as a forum for adjudicating civil or criminal liability. In conducting the investigation, the Subcommittee was exercising its broad environmental oversight jurisdiction as well as its legislative jurisdiction over Superfund. With this objective and these parameters, based on the information reviewed by the Subcommittee, and in consideration of the above conclusions, the Subcommittee makes the following recommendations:

1. *The enforcement structure of the Environmental Protection Agency should be reorganized along the lines of the Agency's previous office of enforcement.*

Technical enforcement staff now serving within program offices at headquarters should be transferred to the offices of their counterpart enforcement attorneys in the Office of Enforcement and Compliance Monitoring (OECM). Regional enforcement attorneys should be transferred out of the Office of Regional Counsel; regional technical enforcement staff should be transferred out of their program offices; and, both these regional attorneys and technical staff should be reconstituted into an office serving as OECM's regional counterpart.

Headquarters OECM should serve as the enforcement policy maker for EPA's enforcement efforts. It should also serve to provide in-depth training to regional enforcement staff who implement the agency's enforcement policies. The objective of such training must be the development of a consistent approach to the implementation of guidance across each of EPA's 10 regions. This does not mean that every similar case across the regions must be decided in exactly the same manner. Rather, the regional enforcement staff must implicitly understand the policy limits of all enforcement guidance, and the leeway it has to make reasoned judgments, given the facts of a particular case. It is recognized that each case may present unique features. Guidance is intended to accommodate such uniqueness. However, a well written policy, consistently applied by a well trained staff will incorporate into enforcement actions the varying specifics of different cases. It is of utmost importance that the procedures utilized to implement guidance and to develop a case be recognized across the agency's regions.

It is also believed that the reunification of technical and legal enforcement staff will end the "turf" battles which have often arisen between the program offices and OECM. Instead, the technical enforcement staff, upon discovering possible violations, will likely communicate more expeditiously with their legal counterparts. It is to be expected that this organizational restructuring will be accompanied by a physical restructuring, as well. Such a restructuring is essential to bring together the technical and legal personnel who are responsible for the same environmental media. This action will reduce or eliminate communication delays.

Had this type of system been in place, the Texas Eastern disposal pits may have been discovered as the remediation program was developed. Further, had this type of system been in place, it most likely would not have taken 10 months after the discovery of the pits to involve the enforcement attorneys. Had the enforcement attorneys been brought in earlier, it is likely that demands on Texas Eastern to expedite its data collection would have been made and/or that the agency would have embarked on data collection long before it actually did.

2. Enforcement resources should be increased.

The Subcommittee recommends that the Office of Compliance Monitoring's (OCM) budget be increased. That office's responsibilities have increased many-fold since 1981, yet its personnel and extramural resources decreased. While they began to increase in 1985, the resources still lag behind the 1981 levels.

It is questionable whether the work-load models which the agency uses to establish its manpower needs and its budget are in any way realistic with regard to OCM or OECM, in general. The Subcommittee further recommends that the agency seriously review its enforcement work-load models to determine whether or not they are useful in the budget making process. The agency may want to consider the use of an independent, outside consultant in the review of its enforcement personnel requirements.

3. The Agency should make increased use of technology to assist its enforcement and compliance efforts.

EPA should seriously consider requiring that reports submitted to it pursuant to statutory authority or by voluntary agreement be in a form which can be readily scanned by equipment. The equipment should be programmed to scan for violations of environmental parameters, reporting requirements, or other measures. The use of technology can reduce the burden on staff, if not reduce workload requirements, and can lead to more consistent and effective enforcement.

4. The final Consent Decree should contain rigorous cleanup schedules, and assure cleanup to the most stringent levels required by the law.

EPA should negotiate for tough cleanup schedules for completion of the work. Stipulated penalties should apply for failure to meet these schedules. In addition, the Consent Decree should spell out the cleanup standards to be used, and assure that they are the most stringent required by law. It should also provide that where state cleanup standards are more stringent, those standards should apply. It should also assure that possible site listing on the National Priorities List is not foreclosed. It should take a more comprehensive approach to site cleanup that is not only driven by PCB remediation, but by the presence of other hazardous substances at sites. The Consent Decree should also assure the most stringent cleanup approach for off-site areas and groundwater, the latter of which should assure groundwater cleanup to the maximum contamination level goal.

5. The final Consent Decree should not compromise the ability of States to assure more stringent and additional cleanup standards, schedules, and measures.

One of EPA's major blunders in the Texas Eastern case was its failure to keep States informed. It is unclear whether this is being repeated as EPA negotiates a settlement with Texas Eastern. But an important component of our Federal environmental laws is their nonpreemptive effect.

In the first instance, the Consent Decree should provide that where States have demonstrated that their cleanup standards are more stringent than those contained in the decree, then Texas Eastern will clean up to those more stringent levels. This will save both the affected States and the company extraordinary transaction costs and move the cleanup along without unnecessary delay. In any event, it is essential that the Consent Decree not impede States' abilities to obtain either settlements, judgments, or administrative orders that are more stringent in their cleanup standards, schedules, and all other measures. It is also essential that EPA keep the states fully informed about the status and content of the negotiations.

6. The consent decree should require an assessment of the health effects of residents near contaminated sites and on-site workers at contaminated sites.

The disposal of PCB contaminant occurred for many years. In addition, Texas Eastern has testified and indicated in written responses that burning occurred in some of the pits. Such burning can produce dangerous dioxins.

Although EPA indicates that dioxin levels at all sites are below Federal action levels, this does not account for air emissions and worker exposure that may have occurred over a number of years at some sites. Moreover, the question of health effects does not turn solely on the issue of dioxins.

Worker and residents' proximity to the pits over the years, is of concern. Some assessment should be done of residents and workers to determine if statistically significant numbers have incurred illnesses associated with PCBs, dioxins, and the other hazardous substances found at these sites.

Although EPA believes it retains the authority to seek health assessments where shown to be appropriate, the Consent Decree would be improved by explicitly requiring such assessments and indicating the criteria for determining when they will be required.

7. The Consent Decree should assure that any possible continuing discharges of pollutants are fully addressed.

The Consent Decree should assure that any possible continuing discharges of pollutants by Texas Eastern are fully addressed. Before finalizing the consent decree, EPA should be certain that it is aware of any and all possible continuing discharges, and that the consent decree assures that such possible discharges will be stopped under applicable Federal and State laws.

8. If EPA becomes aware of possible new discharges or pollution associated with the pipeline, or new site data, it should inform affected States and congressional committees overseeing or investigating such matters.

EPA's commitment to working with the States, the public, and Congress does not end after a hearing is over. Similarly EPA's commitment should not be circumscribed by waiting to be asked a particular question or being forced by events ultimately to reveal an important fact. This is particularly true where testimony at a hearing by EPA and others gives no clear suggestion of possible continuing discharges. EPA has an ongoing responsibility to States and congressional committees overseeing or investigating an environmental violation to share new information promptly. During his testimony before the Subcommittee, Assistant Administrator Adams provided assurances of sharing new data with "Congress, the States, affected citizens, and the American people." Those were well received assurances, with which the Agency should continue to comply.[221]

9. EPA should assure that the final Consent Decree includes a provision indicating that the Decree in no way is intended to prejudice FERC's rate determinations related to direct and indirect costs associated with the contamination and remediation.

In seeking to acheive a cleanup agreement, EPA should not compromise later action by FERC with respect to rates. Although EPA's December 7, 1987 letter to the Chairman [222] indicates that the Agency has no intent to prejudice rate determination through the settlement, an explicit provision in the consent decree indicating that the decree in no way prejudices FERC's related rate determinations would make this point clear.

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[221] See Hearings at 41, paragraph 8.

[222] See Appendix at Exhibit J, page 2.

10. When negotiating settlements that may involve application of laws in addition to environmental laws, EPA should bring an understanding of such laws to bear in its negotiations.

EPA's apparent failure to analyze the impacts of a settlement with Texas Eastern on future rate actions should not be repeated. Consultation with other Federal agencies and review of other applicable laws is an obvious principle of good government. The left hand should know what the right hand is doing. EPA's mission is to enforce our environmental laws, and not to undermine the Nation's other laws or the mission of other branches of government.

11. To safeguard our environment laws, FERC should not allow rate recovery of a regulated entity's costs, which result from violations of the environmental laws or which are deemed not to be just and reasonable because they result from actions that are inconsistent with the entent and requirements of such environmental laws.

FERC should not allow rate recovery of any costs, which result from violations of environmental laws.[223] The Subcommittee does not purport to tell FERC how it should rule in a specific case or what kinds of findings it can and should make. If, however, a regulatory agency or court with authority to determine whether violations of environmental laws had occurred by a regulated entity, has made such a determination, FERC should take that into account in evaluating whether costs are just and reasonable. In addition, even absent such a finding by another agency or court, FERC should use its broad authority to evaluate whether costs result from activities that are inconsistent with the intent and requirements of our environmental laws. Such inconsistency would seem to be evidence of actions not prudently incurred in the normal course of business operations. To assure the consistent application of this approach, Congress should consider whether further statutory direction may be necessary.

The principle articulated here is relevant where a violation of law or an action deemed to be inconsistent with the intent or requirements of our laws has occurred. Compliance with environmental law and actions taken to prevent pollution over and above the requirements of law would be normal and prudent expenditures, and would appropriately be passed on to ratepayers. By assuring that such compliance costs can be recovered, absent a violation of law, the regulated entity is given incentive for environmental protection and compliance. Accordingly, it might be appropriate in evaluating a particular rate request for FERC to segregate costs resulting from violations of or acts deemed inconsistent with environmental laws from costs resulting from legal acts of compliance with such laws, or even costs resulting from acts currently unlawful, but lawful at the time they were committed.

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[223] It is noted that by definition a violation of an environmental law assumes that no statutory or common law exceptions or defenses to liability apply. Section 107(b) of Superfund, for example, states that there is no liability for a release where it can be established that the release was caused solely by an act of God or war, as defined in the statute.

12. The tracking of PCB wastes from the time of generation until ultimate disposal should be required.

This incident illustrates the need for a system that better identifies the amounts of PCB wastes being generated, stored, transported, and disposed of. The Resource Conservation and Recovery Act (RCRA) accomplishes this through procedures that identify wastes as they are generated and a uniform manifest system that tracks them as they are transported. EPA is now considering development of regulations under the Toxic Substances Control Act (TSCA) that would create a similar system for PCB wastes. The Agency should expedite this rulemaking process, or TSCA should be amended to require more careful accounting of what firms control particular amounts of PCB wastes.

13. EPA should give prompt notice to States and affected citizens when being informed of possible environmental contamination.

EPA should assure that the Superfund notification requirements under section 103 and section 304 of title III are rigorously enforced. If EPA obtains information, as it did in the Texas Eastern case, raising the possibility of section 103 notification duties, the Agency should determine whether those duties have arisen. If EPA believes section 304 notification is also mandated, it should advise parties providing information about releases of these additional duties under the law. In addition, if current regulations are deemed insufficient, EPA should modify the regulations implementing the notification requirements under Superfund or other environmental laws to assure that notification duties on those releasing contamination would apply in future contamination scenarios similar to the Texas Eastern case. Modification for PCBs, for example, might include reduction of the threshold quantity for a 24-hour period,[224] as well as establishing an alternative threshold quantity for a longer durational period. Failure by EPA to use its regulatory authority to assure this coverage might merit amendments to the appropriate Federal notification provisions to assure that situations like this are covered under Federal laws. Finally, EPA should learn an important lesson here about Federal-State as well as community relations. Whether or not EPA or the National Response Center had a legal duty to notify States, local governments, and affected citizens, testimony at the hearing indicated an expectation from all such parties that EPA should provide such notification. An obligation, which goes beyond strict legal requirements, exists on the part of the Agency to provide such notification.

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[224] The Subcommittee notes some movement in this direction in a March 16, 1987 proposed EPA regulation on reportable quantities. That proposal would reduce the PCB quantity for a 24-hour period to 1 pound. 52 Fed. Reg. 8140, 8155.

X. APPENDIX

Exhibit A

QUENTIN N BURDICK NORTH DAKOTA CHAIRMAN

DANIEL PATRICK MOYNIHAN NEW YORK
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PETER D PROWITT STAFF DIRECTOR
BAILEY GUARD MINORITY STAFF DIRECTOR

United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510-6175

November 16, 1987

Lee M. Thomas
Administrator
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

Dear Lee:

I am writing to raise several questions about the announced agreement in principle between EPA and Texas Eastern Gas Pipeline Company. As you know, the Subcommittee on Superfund and Environmental Oversight held hearings on the Texas Eastern matter, conducted a review, and is preparing to issue a report on its findings and recommendations.

First, it is essential that the final agreement have strict deadlines for completing work at specified sites. Failure to meet any deadline should subject the company to appropriate penalties. I have serious concerns about the West Amwell site in New Jersey. The Company assured me last Monday that this site would be given the highest priority as far as schedules for cleanup action and completion were concerned. I expect to see this borne out in the final agreement. I also expect to see a rigorous cleanup schedule, including completion dates, for all other sites in question.

Second, I am deeply concerned over unfairly passing on costs associated with this contamination and its remediation, including legal fees and cleanup costs, to ratepayers. Although this is a matter for the Federal Regulatory Energy Commission, and state commissions, I request that the final consent decree make it clear that the decree in no way prejudices FERC's or state commissions' ultimate determination of rates related to costs associated with this matter. The EPA should not, within the agreement, characterize Texas Eastern's behavior in such a way as to preclude a decision by ratemakers to require Texas Eastern to bear direct and related costs of cleanup.

Third, the agreement in principle does not include any requirement to assess the health effects related to exposures of on-site employees of Texas Eastern or residents living nearby the sites in question. Given that burning of polychlorinated biphenyls (PCBs) occurred at some of the sites, including the site in West Amwell, and the general levels of contamination over the years, such health assessments are merited, and should be included in the final consent decree. Finding dioxin levels below the federal action level in soil samples now, for example, does not give a clear sense of the exposures in the air in previous years.

Fourth, the final consent decree should be consistent with and protective of the interests and rights of the individual states affected by the contamination.

Fifth, the $400 million remediation estimate should not be a cap on cleanup costs. The key is to assure that the cleanup is done properly. In order to assess Texas Eastern's cleanup plans more thoroughly, I request that EPA provide the Subcommittee with more details about the $400 million cleanup estimate, including how this figure was arrived at and what the projected remediation costs are for each site and in each state. I request that EPA provide this information as soon as possible, and as it is received, if necessary. The Subcommittee plans to issue a report on this matter in the near future.

I would strongly urge you to assure that these concerns are properly addressed in the final consent decree. I would appreciate a response indicating how such concerns will be addressed and providing the requested details of the $400 million remediation estimate.

Sincerely,

Frank

Frank R. Lautenberg
Chairman
Superfund and Environmental
Oversight Subcommittee

QUENTIN N. BURDICK, NORTH DAKOTA, CHAIRMAN
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ALAN K. SIMPSON, WYOMING
STEVE SYMMS, IDAHO
DAVE DURENBERGER, MINNESOTA
JOHN W. WARNER, VIRGINIA
LARRY PRESSLER, SOUTH DAKOTA

PETER D. PROWITT, STAFF DIRECTOR
BAILEY GUARD, MINORITY STAFF DIRECTOR

Exhibit B

United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510-6175

November 16, 1987

Mr. Derrill Cody
Chairman of the Board & CEO
Texas Eastern Gas Pipeline Company
Box 2521
Houston, Texas 77252

Dear Mr. Cody:

I am writing to you to follow up on our November 9 conversation about the Agreement in Principle between Texas Eastern and the Environmental Protection Agency (EPA).

I am pleased by the company's commitment to address the West Amwell site among the first, highest priority sites evaluated and cleaned up. I do want to stress the importance of having rigorous schedules in the final consent decree for completing work at all the sites in question as well.

As I have indicated to EPA, I believe the final consent decree should require the company to conduct health assessments related to exposures of on-site employees of Texas Eastern or residents living nearby the sites in question. Given that burning of polychlorinated biphenyls (PCBs) occurred at some of the sites, including the site in West Amwell, and the general levels of contamination over the years, such health assessments are merited, and should be included in the final consent decree. Finding dioxin levels below the federal action level in soil samples now, for example, does not give a clear sense of the exposures in the air in previous years.

I also believe that the final consent decree should be consistent with and protective of the interests and rights of the individual states affected by the contamination.

I want to reiterate that the $400 million cleanup estimate should not be a cap, but only a projection of future costs. The key is to assure proper cleanup. In order to assess the estimate the company has provided, I would like a more specific breakdown of the $400 million figure, including how it was arrived at, and what the projected cleanup costs are for each site and in each state. Please provide such information to the Subcommittee according to the schedule referenced below for the information on rates.

A final point, which we discussed, and which I have raised in separate letters to EPA and FERC, is my concern over passing through to ratepayers direct and indirect costs associated with

4

the contamination and remediation. I have requested that FERC scrutizine this question thoroughly.

To assist the Subcommittee in analyzing this rate question, I request that you provide the Subcommittee with a complete and itemized accounting of past and proposed expenditures directly or indirectly associated with the contamination and remediation.

The Company should identify those costs incurred during the period of time in which the disposal of pipeline condensates was subject to regulation under applicable laws and regulations.

In addition, please provide the Subcommittee with complete information on whether and how much of these direct and indirect costs associated with the contamination problem have previously been passed on through rates. Such an assessment should include the related case of the Transwestern Pipeline Company, a former subsidiary of Texas Eastern, which agreed to a settlement penalty and cleanup order in circumstances similar to those facing Texas Eastern today. The Subcommittee requests a projection on how much of those costs not already recovered, it expects to recover through rates over the next ten years.

The Subcommittee plans to complete its report in the near future, and would like such information on rates and cleanup costs as soon as possible. A prompt response would be appreciated. Should Texas Eastern not be able to provide such complete information promptly within 14 days, please provide the Subcommittee with the information available within that time, and provide the Subcommittee with a proposed schedule for completion of your response.

I appreciate your assistance.

Sincerely,

Frank R. Lautenberg

Frank R. Lautenberg
Chairman, Superfund and
Environmental Oversight
Subcommittee

QUENTIN N. BURDICK, NORTH DAKOTA, CHAIRMAN

DANIEL PATRICK MOYNIHAN, NEW YORK
GEORGE J. MITCHELL, MAINE
MAX BAUCUS, MONTANA
FRANK R. LAUTENBERG, NEW JERSEY
JOHN B. BREAUX, LOUISIANA
BARBARA A. MIKULSKI, MARYLAND
HARRY REID, NEVADA
BOB GRAHAM, FLORIDA

ROBERT T. STAFFORD, VERMONT
JOHN H. CHAFEE, RHODE ISLAND
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JOHN W. WARNER, VIRGINIA
LARRY PRESSLER, SOUTH DAKOTA

PETER D. PROWITT, STAFF DIRECTOR
BAILEY GUARD, MINORITY STAFF DIRECTOR

Exhibit C

United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510-6175

November 16, 1987

The Honorable Martha O. Hesse
Chairwoman
Federal Energy Regulatory Commission
Washington, D.C. 20426

Dear Chairwoman Hesse:

As Chairman of the Subcommittee on Superfund and Environmental Oversight, I am writing about concerns associated with the recently announced agreement in principle between the Environmental Protection Agency and the Texas Eastern Gas Pipeline Company, concerning the contamination and remediation of areas along the pipeline. My Subcommittee held a hearing in April on the matter, and is currently completing an investigation and report.

Texas Eastern contemplates a $400 million cleanup over the next ten years, and announced that some of those costs will be covered by rate recovery. I firmly believe that the polluter should pay for the cost of remediation. I am concerned about unfairly passing on costs associated with the contamination and remediation, including cleanup costs and legal fees, to ratepayers. Certainly if there are costs associated with knowing or willful violations of environmental law, they should not be considered a normal cost of doing business, which is generally recoverable through rates. Allowing such costs to be passed through would turn the proper incentives of our environmental law on their head. The polluter avoids the costs of proper environmental handling and then avoids the costs of remediations. It becomes a case of heads, the polluter wins; tails, the public loses.

The Federal Energy Regulatory Commission (FERC) should thoroughly consider the many complex facts and legal questions presented by the Texas Eastern case before making any determination to allow costs associated with this case to be passed on through rates. FERC also should examine the level of culpability of the company with regard to various decisions and actions that resulted in costs proposed to be passed on.

In making such a determination, I recommend that FERC specifically require delineation and segregation of all direct and indirect costs associated with the contamination and remediation activities.

I suggest that FERC require such information both prospectively and retrospectively, in the latter case for the period of time during which the disposal of pipeline condensates was subject to regulation under applicable laws and regulations. I also suggest that FERC require the company to provide specific details relating to the estimated prospective costs of cleanup, including how much will be spent in each state and at each site for evaluation and cleanup.

In addition, I would be interested in knowing whether and how much of these direct and indirect costs associated with the contamination problem have previously been passed on through rates. Such an assessment should include the related case of the Transwestern Pipeline Company, a former subsidiary of Texas Eastern, which agreed to a settlement penalty and cleanup order in circumstances similar to those facing Texas Eastern today.

Should FERC already be in possession of some or all of this information about Texas Eastern's future and past costs, I request that this information be provided to the Subcommittee as soon as possible. If not, I request that FERC request such information expeditiously and provide it to the Subcommittee as it is received. The Subcommittee plans to issue a report on this matter in the near future, and requires such information for completing the analysis of the rate questions raised by this case.

I appreciate your assistance, and look forward to your prompt response.

Sincerely,

Frank R Lautenberg

Frank R. Lautenberg
Chairman, Subcommittee on
Superfund and Environmental
Oversight

QUENTIN N. BURDICK, NORTH DAKOTA, CHAIRMAN
DANIEL PATRICK MOYNIHAN, NEW YORK
GEORGE J. MITCHELL, MAINE
MAX BAUCUS, MONTANA
FRANK R. LAUTENBERG, NEW JERSEY
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LARRY PRESSLER, SOUTH DAKOTA
PETER D. PROWITT, STAFF DIRECTOR
BAILEY GUARD, MINORITY STAFF DIRECTOR

Exhibit D

United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510-6175

November 23, 1987

Lee M. Thomas
Administrator
Environmental Protection Agency
Washington, D.C.

Dear Lee:

I am writing to follow up on my November 16 letter concerning the Agreement in Principle with Texas Eastern. I am concerned about any possible continuing violations by Texas Eastern of the PCB rule or other environmental laws and regulations.

The November 9, 1987 Congressional briefing on the Agreement in Principle and the Texas Eastern Fact Sheet released that day suggest that venting from the pipeline may still be resulting in PCB discharge. My staff investigated these suggestions to determine whether the Subcommittee had been previously alerted to such violations. My staff determined that the Subcommittee had not been alerted either by EPA or the company. I am troubled by this, particulary because this information was not disclosed until the November 9 announcement.

I would request no later than November 30, a complete description of any possible continuing violations by Texas Eastern. This should include the specific locations where such possible violations are occuring, the amount of such discharges, the levels of PCBs associated with each discharge, and the substances other than PCBs that are being discharged and in what amounts. For each discharge I request a description of what laws are possibly being violated.

I would also like to know when EPA staff first became aware of such possible violations, and whether all the states where such possible continuing violations are occurring have been notified. In addition, I would like to know whether EPA believes federal or state law requires such notification by EPA or the company.

Sincerely,

Frank Lautenberg

Frank R. Lautenberg
Chairman, Superfund and
Environmental Oversight
Subcommittee

QUENTIN N. BURDICK, NORTH DAKOTA, CHAIRMAN
DANIEL PATRICK MOYNIHAN, NEW YORK
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PETER D. PROWITT, STAFF DIRECTOR
BAILEY GUARD, MINORITY STAFF DIRECTOR

Exhibit E

United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510-6175

November 23, 1987

Lee M. Thomas
Administrator
Environmental Protection Agency
Washington, D.C.

Dear Lee:

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The November 9, 1987 Congressional briefing on the Agreement in Principle and the Texas Eastern Fact Sheet released that day suggest that venting from the pipeline may still be resulting in PCB discharge. My staff investigated these suggestions to determine whether the Subcommittee had been previously alerted to such violations. My staff determined that the Subcommittee had not been alerted either by EPA or the company. I am troubled by this, particulary because this information was not disclosed until the November 9 announcement.

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I would also like to know when EPA staff first became aware of such possible violations, and whether all the states where such possible continuing violations are occurring have been notified. In addition, I would like to know whether EPA believes federal or state law requires such notification by EPA or the company.

Sincerely,

Frank Lautenberg

Frank R. Lautenberg
Chairman, Superfund and
Environmental Oversight
Subcommittee

Exhibit F

TEXAS
EASTERN
Transmission Corporation

MICHAEL E. COSTELLO
VICE PRESIDENT
GOVERNMENT RELATIONS

November 9, 1987

The Honorable Frank Lautenberg
Chairman
Senate Environment Subcommittee on
Environmental and Superfund Oversight
408 Hart Senate Office Building
Washington, D.C. 20510

Dear Mr. Chairman:

As you may recall we wrote you last February regarding the contamination resulting from the use of polychlorinated biphenyls (PCBs) at compressor stations along the Texas Eastern Gas Pipeline system, which traverses 16 states in the eastern United States from the Gulf Coast to the northeast (see attached system map). Since that time Texas Eastern has been working with EPA through its headquarters in Washington to develop a program for addressing contamination at its compressor station sites along the pipeline system, some of which are located in your state.

Today Texas Eastern reached an Agreement in Principle with the Environmental Protection Agency and the Department of Justice. This is an important milestone in finalizing our cleanup program, which will cover up to 89 specific sites in 14 states across our system. Texas Eastern believes that a consistent and comprehensive cleanup approach, accomplished through a nationwide agreement, is the only practicable method for addressing a program of this magnitude. The main terms of the Agreement in Principle are summarized in the attached fact sheet. Texas Eastern and EPA will resume negotiations immediately to conclude the terms of the consent decree. We anticipate that work under the decree will commence as soon as the decree is entered, which is anticipated to occur by the end of 1987.

While our focus has been on the EPA so we can efficiently address all states in which our system operates, we want to emphasize to you that we are committed to work with you to keep you informed and to address the particular concerns of your office and constituents.

1090 VERMONT AVENUE, N.W. WASHINGTON, D.C. 20005 (202) 842-2226

The Honorable Frank Lautenberg
November 9, 1987
Page Two

After reviewing this letter and the enclosed attachments should you or your staff have any questions regarding this matter please contact me at (202) 842-2226. We will be happy to respond to your inquiries or make arrangements for a meeting with Texas Eastern representatives who can respond to any concerns you may have.

Very truly yours,

Michael E. Costello

Michael E. Costello
Vice President
Government Relations

Attachments

MEC/leu

TEXAS EASTERN

Exhibit G

News Release

FOR RELEASE: IMMEDIATELY

TEXAS EASTERN SIGNS AGREEMENT-IN-PRINCIPLE ON PCBs

Houston, Texas, November 9, 1987—Texas Eastern Corporation termed the agreement-in-principle signed today by its natural gas pipeline subsidiary with the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Justice a significant step toward completing the company's efforts since 1972 to rid its pipeline system of polychlorinated biphenyls (PCBs).

The agreement, according to the company, is not binding but is intended to form the basis for completing negotiations with the federal government on a consent decree setting forth the conditions under which its subsidiary, Texas Eastern Transmission Corporation, will complete the PCB cleanup program at its compressor station sites. Up to 89 sites in as many as 14 states could be involved.

Texas Eastern said it expects to complete the site characterization, source control and cleanup work described in the agreement over approximately a 10 year period. The company stated that it expects this work will not interrupt or diminish its operational ability to deliver natural gas to its customers.

The estimated cost of the program which Texas Eastern would undertake approximates $400 million. The company said it is difficult to make an estimate of the ultimate cost of the program with a high level of confidence until all site characterization is completed both on and offsite at its compressor stations. The company will seek recovery of such costs from insurance and other claims and through rate recovery mechanisms.

In addition, the company has agreed to pay a civil penalty of $15 million, subject to reaching final agreement with the EPA. The company said that although it believes such a penalty is inappropriate, it has agreed to the penalty payment in order to expedite a settlement and to avoid the uncertainties of litigation. The penalty is not recoverable nor deductible for federal income tax purposes; therefore, if a final agreement is reached, Texas Eastern will record a charge against its earnings.

- more-

The company said that it hopes the consent decree will be finalized by year-end. Once the decree is signed, characterization will proceed as determined by the EPA and the company.

Texas Eastern said that it will continue to work with individual states and that the anticipated entry of the consent decree in federal district court will not supersede agreements already reached with any states. The company does, however, hope that the states will find the national agreement to be a satisfactory basis upon which to proceed with the cleanup.

Texas Eastern first used PCBs as a fire-retardant in its turbine/compressors beginning in 1958, but began phasing out their use in 1972. The phase out was completed by 1977, before the manufacture of PCBs was prohibited by federal law. In the ensuing years, the company expanded its liquids handling operations and more effectively captured the PCBs in the condensate within the pipeline system.

In 1985 Texas Eastern notified EPA that the company intended to conduct a pilot study of PCB contamination in soils at eight of its compressor stations. Texas Eastern retained an independent engineering consulting firm and sought the EPA's comments on the conduct of the study. This effort was expanded to screen 62 stations for possible PCB contamination in early 1986. In November of that year, the company submitted to the EPA the results of preliminary studies and a generic surface soil cleanup plan.

This submission was followed by the filing of the consultant's final report in March, 1987. Since May, the company has engaged in continuous negotiations with the EPA in Washington. These negotiations led to the agreement-in-principle, which will serve as a basis for completing the negotiation of a consent decree to be entered in federal district court after public notice and opportunity for comment.

FOR FURTHER INFORMATION CONTACT:

(News Media)	(Security Analysts)
Fred Wichlep	Barbara Bundschuh
Vice President	Director
Public Affairs	Investor Relations
(713) 759-4646	(713) 759-4585

Exhibit H

November 9, 1987

FACT SHEET
PREPARED BY TEXAS EASTERN
CONCERNING AGREEMENT IN PRINCIPLE
BETWEEN
ENVIRONMENTAL PROTECTION AGENCY, U.S. DEPARTMENT OF JUSTICE
AND
TEXAS EASTERN GAS PIPELINE COMPANY,
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

1. General Description.

a. Agreement in Principle provides basic concepts for settlement with a program for characterization and cleanup to be embodied in judicial Consent Decree.

b. Conclude negotiations on Consent Decree by year end.

c. Settlement will accomplish the following:

- Address 89 sites in 14 states -- largest number ever addressed in single settlement.
- Clean up PCBs at the sites.
- Install source controls to complete the control of the release of pipeline liquids containing PCBs.
- Provide a coordinated, systemwide approach.
- Establish an agreed upon process for systemwide cleanup without need for litigation by government.

2. Classification of Sites.

a. Classification based on initial TE characterization of areas of potential PCB presence at compressor station sites.

b. For purposes of characterization, remediation and priority of cleanup, the 89 sites have been classified as follows:

A-1 - Sites containing concentrations of PCBs in excess of agreed upon cleanup levels (49 sites).

A-2 - Sites not expected to contain concentrations of PCBs in excess of agreed upon cleanup levels (27 sites).

A-3 - Sites at which there is no historic PCB use and which are upstream of sites at which PCBs were used (13 sites).

3. Characterization and Cleanup.

   a. All characterization and on-site remediation activities will be completed within 10 years after effective date of the Consent Decree, if present classification of sites remains unchanged.

   b. A-1 Sites

      1) All A-1 sites will be addressed first in the schedule. Activities could commence in at least 10 states within the first three years of operation under the Consent Decree.

      2) TE will characterize PCB concentrations on-site in surface soils, earthen condensate pits, drainage ditch and stream sediments, aquatic biota, subsurface soils near underground liquid storage tanks, and on equipment surfaces. TE will also test at the pit bottom and in off-site soils for PCBs and representative group of hazardous substances.

      3) TE will clean up on-site PCB contamination to the following levels:

Surface soils	-	25 ppm PCBs in restricted access areas.
	-	10 ppm PCBs in unrestricted access areas.
Earthen condensate pits	-	25 ppm PCBs. Excavation, at a minimum, to pit boundaries. Additional excavation of 1 foot of soil below pit bottom, if cleanup to 1 ppm PCB can be achieved through such action. Excavation to achieve 25 ppm PCBs limited to 25 feet below surface or until reaching groundwater or bedrock which make further excavation impracticable.
Drainage ditches	-	5 ppm PCBs.
Equipment surfaces	-	Decontamination to levels specified in the PCB Spill Cleanup Policy.

   c. A-2 Sites - Characterize PCBs in soils and earthen condensate pits, and test below pit bottom for PCBs and selected group of hazardous substances.

   d. A-3 Sites - Verify absence of PCBs in pipeline liquids.

   e. A-2 and A-3 sites can change classification depending on characterization data.

   f. Install groundwater monitoring wells at A-1 and A-2 sites and monitor for PCBs and representative group of hazardous substances for up to 20 years.

g. Off-site equipment areas including pipeline right-of-way will be characterized for PCBs.

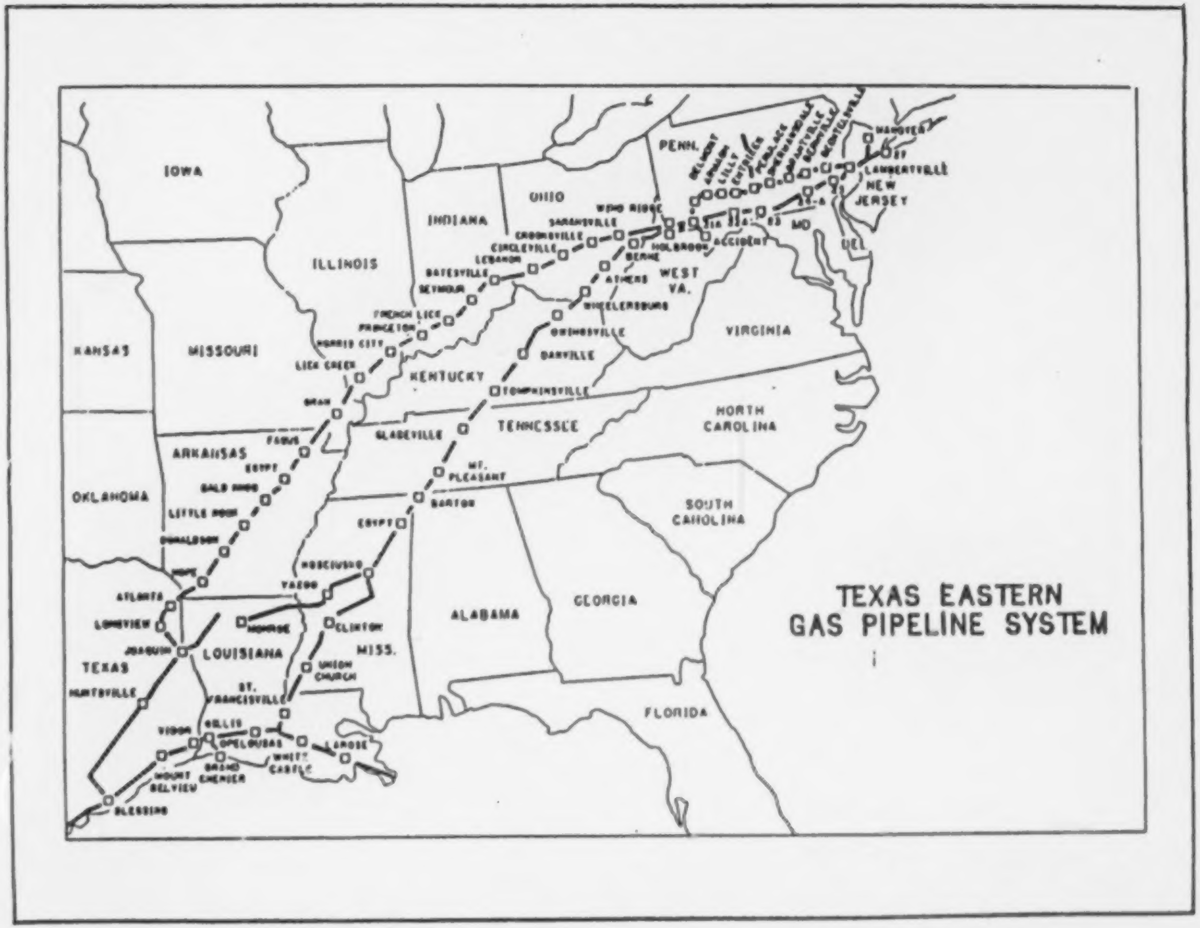
h. TE will provide the results of its characterization program to EPA and the states.

4. Source Controls. Install source controls at all sites to control discharges of liquids from the pipeline which will eliminate further PCB contamination.

5. Costs.

a. Cost of program outlined above approximates $400 million.

b. Penalty of $15 million resolves allegations of past violations of hazardous waste laws.



TEXAS EASTERN
GAS PIPELINE SYSTEM

IOWA
KANSAS
MISSOURI
OKLAHOMA
ARKANSAS
TEXAS
LOUISIANA
MISS.
ILLINOIS
INDIANA
OHIO
KENTUCKY
TENNESSEE
ALABAMA
GEORGIA
FLORIDA
SOUTH CAROLINA
NORTH CAROLINA
VIRGINIA
WEST VA.
PENN.
MD
DEL
NEW JERSEY
BLESSING
MOUNT BELVIEU
VIDOR
HUNTSVILLE
JOAQUIN
LONGVIEW
ATLANTA
HOPE
DONALDSON
LITTLE ROCK
BALD KNOB
EGYPT
ORAN
LICK CREEK
NORRIS CITY
PRINCETON
FRENCH LICK
SEYMOUR
BATESVILLE
LEBANON
CIRCLEVILLE
CROOKSVILLE
SARAHSVILLE
WIND RIDGE
HOLBROOK
ACCIDENT
BERNE
ATHENS
WHEELERSBURG
OWINGSVILLE
DANVILLE
TOMPKINSVILLE
GLADEVILLE
MT. PLEASANT
BARTON
EGYPT
KOSCIUSKO
YAZOO
MONROE
CLINTON
UNION CHURCH
ST. FRANCISVILLE
KELLIS
OPELOUSAS
GRAND CHENIER
WHITE CASTLE
LAROSE
LAMBERTVILLE
HANOVER
DELMONT
ARMAGH
LILLY
ENTRIKEN
PERULACK
SHERMANSDALE
GRANTVILLE
BERNVILLE

TEXAS EASTERN
Gas Pipeline Company
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

Exhibit I

DERRILL CODY
CHAIRMAN AND
CHIEF EXECUTIVE OFFICER

November 30, 1987

The Honorable Frank R. Lautenberg
Chairman, Superfund and Environmental
Oversight Committee
Committee on Environment and Public Works
United States Senate
Washington, D.C.

Dear Senator Lautenberg:

This letter responds to yours of November 16, 1987, regarding the Agreement in Principle entered November 9, 1987, by Texas Eastern with the Environmental Protection Agency (EPA) and the Department of Justice.

With respect to our $400 million clean-up cost estimate, we have cautioned EPA and the states that this initial estimate is necessarily imprecise and does not include costs such as those related to the disposal of pipeline liquids containing PCBs. We cannot further refine the total amount of these ten-year projections, particularly in the later years, until the site assessment work is completed and we understand the full extent of the remedial work which will be necessary to comply with the terms of the Consent Decree. The $400 million estimate is just that--an estimate, and the Consent Decree will establish neither a cap nor a floor on clean-up costs.

Attached to this letter as Appendix A is a general breakdown of our present projection of the overall clean-up costs, as well as cost projections on a site-specific basis. I reiterate that these projections will be refined and become more accurate as the work progresses. The work will be carefully scoped in accordance with requirements of the Consent Decree, agreed to on a site-specific basis between EPA and Texas Eastern, estimated on a more precise basis using information to be developed in the site characterization phase, and put out for bid prior to execution of contracts. Texas Eastern is investigating several methods of disposal for PCB contaminated soils that would satisfy or exceed regulatory disposal requirements. The Company

P.O. BOX 2521 HOUSTON, TEXAS 77252-2521 (713) 759-3131 TELEX 775459 CABLE TETCO HOU

is committed to clean up of the sites in a cost effective manner that is protective of human health and the environment.

Regarding your question concerning the basis for the $400 million estimate, it includes costs for characterization, remediation and verification of clean-up levels at 89 compressor stations, along with characterization at certain offsite locations, such as pig receivers, as will be set forth in the program for implementation of work negotiated with EPA. It includes estimates for source controls; excavation of contaminated soils and backfill with clean soils; transport of soils and disposal at facilities authorized to accept PCB-contaminated material; on-site construction management for remediation, including a mobile laboratory, survey crew and on-site inspection; consulting fees to support implementation of the Consent Decree; funding for an oversight contractor to provide EPA support; and Texas Eastern's internal management costs, all over a ten-year period.

Your final area of inquiry concerns rate issues. To assist your Subcommittee in analyzing these issues, there is attached as Appendix B a complete and itemized accounting of PCB related costs incurred by Texas Eastern through October 31, 1987. These past expenditures are shown for each year commencing in 1981 and for the most part are in addition to the $400 million we currently estimate we will spend in the future. The PCB related operating and maintenance expenses which have been included for recovery from ratepayers are shown on Appendix C attached hereto. In addition, there are shown on Appendix C the PCB related capital costs in Texas Eastern's rate base which will be recovered through depreciation and amortization expense over the depreciable life of the property.

With respect to capital expenditures for facilities included in our past expenditures and future cost estimates, it should be noted that while such facilities may be useful in controlling PCBs, in most instances they also serve other functions to run the pipeline efficiently and safely so that they cannot be deemed associated solely with the PCBs. For example, many of these facilities control the amount of liquids in the pipeline system and aid Texas Eastern in meeting the quality specifications contained in its contracts and tariffs.

The past PCB related costs are set forth on Appendix B by year. This should permit you to determine the extent to which these costs were incurred during periods of time relevant to regulation under applicable laws and regulations.

We are unable to respond at the present time to your request for data concerning clean-up costs which may have been incurred by Transwestern Pipeline Company, a former subsidiary of Texas Eastern, pursuant to a Consent Agreement and Compliance Schedule dated August 3, 1982 entered into by Transwestern with the EPA regarding PCB's. In November, 1984 Texas Eastern sold all of its stock in Transwestern to Houston Natural Gas Corporation (now Enron Corporation) at which time the books and records of Transwestern were transferred. In the absence of such books and records Texas Eastern cannot determine what clean-up costs, if any, were incurred or how much of any such costs were recovered from ratepayers. Texas Eastern will attempt to obtain the requested information from Enron Corporation for forwarding to you or will promptly notify you if it is unable to obtain such information.

Finally, Texas Eastern will seek to recover the costs relating to its environmental remediation program to the extent permitted by applicable laws and regulations. The Company believes that the costs related to the environmental remediation program are necessary and reasonable business expenses and, as such, are properly includable as an element in the rates charged its customers. How and to what extent these costs will actually be recovered in rates depends upon the timing and resolution of rate case filings during the period when such costs are incurred. The reasonableness of these costs and the appropriate rate treatment will, of course, be considered and decided by the FERC pursuant to its jurisdiction under the Natural Gas Act. Ultimately, recovery of such costs will depend upon Texas Eastern's rates continuing to be competitive in the markets it serves. For these reasons, a detailed breakdown of the costs that will be recovered in rates over the next ten years cannot be provided at this time.

We believe that the above addresses your inquiries and are pleased to be able to provide this response within the timeframe you requested.

Yours very truly,

Derrill Cody

Derrill Cody

DC/trj
Attachments

APPENDIX A

Summary of Estimated Costs for Work Anticipated to Implement Proposed Consent Decree with USEPA (in millions)

o	Characterization	$ 52
o	Source Control	68
o	Oversight Contractor to Assist EPA	14
o	Site Cleanup	158
o	Internal Management Cost	41
o	Consultants	61
o	Cost of Initial Assessment	3
		$ 397

APPENDIX A

Estimated Remediation Costs on a Site-specific Basis for Work Anticipated to Implement Proposed Consent Decree with USEPA (in thousands)

SITE	DOLLARS
Barton, Alabama	$ 6,286
Total: Alabama	6,286
Bald Knob, Arkansas	1,736
Donaldson, Arkansas	1,736
Egypt, Arkansas	1,736
Fagus, Arkansas	1,736
Hope, Arkansas	5,977
North Little Rock, Arkansas	7,231*
Total: Arkansas	20,152
Lick Creek, Illinois	1,736
Norris City, Illinois	1,736
Total: Illinois	3,472
Batesville, Indiana	1,736
French Lick, Indiana	1,736
Princeton, Indiana	1,736
Seymour, Indiana	1,736
Total: Indiana	6,944
Danville, Kentucky	5,371
Owingsville, Kentucky	4,071
Tompkinsville, Kentucky	6,055
Total: Kentucky	15,497
Caillou Island, Louisiana	1,195
Castor, Louisiana	1,940
Gillis, Louisiana	1,736
Grand Chenier, Louisiana	1,195
Greenwood Field, Louisiana	8
Iowa Plant, Louisiana	8
Lake Providence, Louisiana	8
Lake Raccourci, Louisiana	1,195
LaRose, Louisiana	8,273
Monroe, Louisiana	1,195
New Roads, Louisiana	3,093

SITE	DOLLARS
Opelousas, Louisiana	1,736
Pointe Au Chien, Louisiana	1,195
St. Francisville, Louisiana	18,106
White Castle, Louisiana	7,231*
24" Line #11 M.P. 281.61	6,044*
6" Line #4 M.P. 5.28	6,044*
24" Line #11 M.P. 282 E. Red River, Louisiana	539
Total: Louisiana	60,741
Accident, Maryland	1,736
Total: Maryland	1,736
Clinton, Mississippi	8,964
Egypt, Mississippi	3,616
Kosciusko, Mississippi	7,941
Union Church, Mississippi	9,304
Yazoo City, Mississippi	7,276
Total: Mississippi	37,101
Oran, Missouri	$ 1,736
10" Line #1 M.P. 9.81, Missouri	549
Total: Missouri	2,285
Hanover, New Jersey	7,231*
Lambertville, New Jersey	6,024
Linden, New Jersey	3,797
Total: New Jersey	17,052
Athens, Ohio	22,286
Berne, Ohio	16,106
Circleville, Ohio	1,736
Crooksville, Ohio	1,736
Lebanon, Ohio	1,736
Sarahsville, Ohio	3,922
Wheelersburg, Ohio	5,159
Total: Ohio	52,681
Armagh, Pennsylvania	$ 9,037
Bechtelsville, Pennsylvania	7,010
Bedford, Pennsylvania	3,069
Bernville, Pennsylvania	7,231*
Chambersburg, Pennsylvania	3,598
Connellsville, Pennsylvania	12,465
Delmont, Pennsylvania	5,965
Eagle, Pennsylvania	7,359
Entriken, Pennsylvania	4,606
Grantville, Pennsylvania	9,292
Holbrook, Pennsylvania	6,662
Lilly, Pennsylvania	5,712

SITE	DOLLARS
Marietta (24), Pennsylvania	549
Marietta (24-A), Pennsylvania	5,777
Perulack (Leidy), Pennsylvania	8,621
Rockwood, Pennsylvania	549
Shermans Dale, Pennsylvania	6,234
Uniontown, Pennsylvania	5,993
Windridge, Pennsylvania	5,195
Total: Pennsylvania	114,924
Gladeville, Tennessee	10,456
Mt. Pleasant, Tennessee	3,222
Total: Tennessee	13,678
Atlanta, Texas	3,221
Blessing, Texas	1,736
Booth, Texas	1,736
Charco, Texas	1,195
Hempstead, Texas	549
Huntsville, Texas	7,231*
Joaquin, Texas	10,214
Longview, Texas	4,070
Lufkin, Texas	7,231*
Mont Belvieu, Texas	1,736
Petronilla, Texas	9
Provident City, Texas	549
Santa Fe, Texas	9
Thomaston, Texas	1,195
Tivoli, Texas	9
Vidor, Texas	1,736
Total: Texas	42,426
Off-site equipment area sampling program:	2,025
TOTAL	$397,000

* These dollars are an average estimated cost per site; no volumes of soil have been estimated.

Appendix B

TEXAS EASTERN TRANSMISSION CORPORATION
ACCOUNTING FOR PCB RELATED COSTS

Description	Prior to 1981 (1)	1981	1982	1983	1984	1985	1986	1987 Thru Oct. 31	TOTAL
Operation and Maintenance Expenses:									
Labor, Benefits, and Exp. of Employees $	0.00	270,932.68	51,611.75	80,668.85	146,430.72	89,000.07	268,237.51	1,560,382.74	2,467,344.32
Supplies and Expenses	0.00	113,358.17	66,693.38	23,690.20	83,756.45	15,174.71	16,117.53	149,737.16	468,547.60
Insurance	0.00	518.80	110.33	230.58	361.18	224.88	461.68	5,638.64	7,546.09
Legal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,434,282.15	2,434,282.15
Outside Services - Engineering	0.00	1,062.55	206.60	0.00	0.00	0.00	1,105,223.83	5,751,210.17	6,857,783.15
Outside Services - Consulting	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85,327.13	85,327.13
Outside Services - Other	0.00	723,447.53	148,321.47	101,826.10	339,380.68	864,489.14	1,629,568.04	2,132,108.15	5,959,061.11
Outside Services - Other Prof. Serv.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	257,787.41	257,787.41
Rental	0.00	0.00	0.00	0.00	0.00	0.00	350.00	4,054.18	4,404.18
Miscellaneous	0.00	19.10	0.00	0.00	109.35	8.45	202.26	8,695.79	9,034.95
Lube Oil Change-Out Program - Disposal and Replacement Costs Prior to 1981	2,952,776.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2,952,776.00
Total Operation and Maintenance Exp.$	2,952,776.00	1,109,338.83	267,023.53	206,415.73	570,038.38	968,897.25	3,020,160.85	12,409,443.52	21,504,094.09
Other Work in Progress	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,721,616.93	1,721,616.93
Capital Expenditures (2)	1,128,723.63	142,606.73	10,189,113.66	1,392,331.23	926,762.49	1,156,991.81	1,658,697.85	795,249.00	17,390,476.40
Total Expenditures $	4,081,499.63	1,251,945.56	10,456,137.39	1,598,746.96	1,496,800.87	2,125,889.06	4,678,858.70	14,926,309.53	40,616,187.70

Footnotes:

(1) Prior to 1981, the company did not specifically identify PCB related costs within the accounts.

(2) Not included are expenditures of $7,236,534.61 related to the installation of a dehydration system and modifications to the existing Grand Chenier Compressor Station in Cameron Parish, LA. The primary function of this installation is to enhance the overall operating efficency of Texas Eastern's system as well as provide control of PCBs.

APPENDIX C

Operating and Maintenance Expenses

Docket No.	Amount
RP81-109	$ 1,121,576.07
RP84-108	634,362.45
RP85-177	817,150.61

Capital Costs

Docket No.	Amount Added	Cumulative Amount
RP74-41	$ 20,336.82	$ 20,336.82
RP75-73	427,572.64	447,909.46
RP79-5	257,612.69	705,522.15
RP78-87	43,802.99	749,325.14
RP81-109	325,041.23	1,074,366.37
RP84-108	11,896,042.57	12,970,408.94
RP85-177	513,703.93	13,484,112.87
CP84-429	59,710.26	13,543,823.13

Exhibit J

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 7 1987

OFFICE OF
ENFORCEMENT AND
COMPLIANCE MONITORING

Honorable Frank Lautenberg
Chairman
Subcommittee on Superfund
  and Environmental Oversight
Committee on Environment and
  Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

I am writing in response to your letter to the Administrator of November 16, 1987, requesting information regarding the Texas Eastern Transmission Corporation's natural gas pipeline system.

In your letter you suggested that the final agreement reached with Texas Eastern should include strict schedules for completing work at the sites. The Agency shares your interest and has established a process to set rigorous implementation schedules, with enforceable deadlines and stipulated penalties, for each activity required of Texas Eastern. The consent decree will include a strict schedule for the initiation of characterization/cleanup work at all eighty-nine sites. For each site, EPA will approve an individual implementation schedule for site activities. In addition, the consent decree will include a rigorous schedule for implementation of an audit of PCB facilities, installation of equipment to control future pipeline liquids discharge, characterization of off-site equipment areas, and site groundwater monitoring.

The priority for implementation of work to be given to a particular site is a matter of further negotiation. Though it is, therefore, not possible at this time to specify the priority to be given to a particular Texas Eastern site, site priority will be established to provide for the expeditious remediation of all sites in view of the relative environmental concern raised by the sites. Factors which will be considered in site prioritization include:

- The general level of contamination;

- The extent of known contamination;
- Routes of possible migration offsite;
- The potential for human exposure;
- The likelihood of further environmental contamination due to factors such as surface water runoff;

The consent decree will provide the parties flexibility to rerank the sites as necessary based upon new information.

You have also raised a concern over the possible effect of the final settlement on future rate determinations related to costs associated with Texas Eastern's cleanup activities. The Agency agrees with you that responsiblity for establishing appropriate rates resides with the Federal Energy Regulatory Commission and appropriate state commissions. The Agency has no intent through this settlement to prejudice the ultimate rate determinations of federal or state agencies. Every effort will be made to limit discussion in the consent decree regarding Texas Eastern's site activities to that required to support the legal allegations against the company.

The Agency shares your concern regarding the potential need for assessments of the health effects from site operations also noted in your letter. When first made aware of the release of PCBs to the environment from the Texas Eastern pipeline, the Agency expeditiously completed site visits and preliminary assessments of all sites of concern to determine the need for action to protect individuals near the sites. As we have advised your staff, our assessment to date indictes that the Texas Eastern sites are generally remote and that site operations and present contamination do not pose a health threat to human populations.

To evaluate the potential for adverse health effects posed by contamination at the sites, the consent decree will provide for an extensive characterization of on-site soils and equipment, groundwater, and off-site soils. If this characterization indicates the potential for adverse past or present human exposure, the Agency retains its authority to seek additional relief, including the completion of appropriate health assessments, from Texas Eastern.

Protection of the interests and rights of the states affected by the Texas Eastern sites is also raised in your letter. The final settlement agreement will not prejudice the right of an affected state regarding Texas Eastern's activities or site conditions. The language of the consent decree will reflect this position.

You raise several questions about the $400 million estimate of cleanup cost. The $400 million figure is an estimate of total costs provided by Texas Eastern. No detailed analysis or site specific breakdown of this figure has been provided to the Agency. We have made no independent calculation of the potential cost of compliance with the requirements of the settlement agreement. It should be noted that the figure is merely an estimate for planning purposes and neither caps nor limits the future efforts required of Texas Eastern to comply with its obligations under the consent decree. The Agency will provide to the Subcommittee any further assessment of compliance costs as developed or made available to the Agency.

Finally, there is apparent confusion over which Texas Eastern facilities will be covered by the final settlement agreement. Enclosed for your information is a listing of the eighty-nine sites to be included in the settlement. As indicated during the November 9, 1987 briefing on the Agreement in Principle we provided to Senate staff, EPA or state authorities have completed sampling at a subset of these sites which were of most concern due to the past use of earthen pits for liquids disposal and other factors. Available sampling data from these sites was provided to your staff during the briefing. Data on additional sites sampled by EPA will be provided to the Subcommittee as quality assurance is completed on sampling results.

I hope that this has been responsive to your request. If you have additional questions regarding this matter, you or your staff may contact Frederick F. Stiehl, Associate Enforcement Counsel, at 382-4544 for additional information.

Sincerely,

for Jonathan Z Cannon
Thomas L. Adams, Jr.
Assistant Administrator

Enclosure

EXHIBIT A

CLASS A-1 SITES

Connellsville (21A), PA
Bedford (22A), PA
Holbrook, PA
Berne, OH
Lambertville (26), NJ
Sarahsville (19), OH
Chambersburg (23), PA
Uniontown (21), PA
Marietta (24A), PA
Eagle (25), PA
Bechtelsville, PA
Delmont, PA
Perulack (Leidy), PA
Entriken, PA
Armagh, PA
Grantville, PA
Shermans Dale, PA
Lilly, PA
Wind Ridge (20), PA
Danville, KY
Union Church, MS
Hope (03), AR
Owingsville, KY
Kosciusko, MS
Wheelersburg, OH
Barton, AL
Gladeville, TN
Joaquin, TX
LaRose, LA
St. Francisville, LA
Athens, OH
Clinton, MS
Tompkinsville, KY
Linden (27A), NJ
Yazoo, MS
Longview (01), TX
Castor, LA
Mt. Pleasant, TN
Egypt, MS
Atlanta (02), TX
New Roads, LA
N. Little Rock (05), AR
Hanover, NJ

EXHIBIT A (Continued)

Class A-1 Sites

Huntsville, TX
Bernville, PA
White Castle, LA
Lufkin, TX
24" Line #11 281.61 W. Red River, LA
6" Line #4 MP 5.28, LA

EXHIBIT B

CLASS A-2 SITES

Rockwood (22), PA
Lebanon (16), OH
Circleville (17), OH
Crooksville (18), OH
Marietta (24), PA
Donaldson (04), AR
Bald Knob (06) AR,
Egypt (07), AR
Fagus (08), AR
Oran (09), MO
Lick Creek (10), IL
10" Line #1-0) MP 9.81, MO
Norris City (11), IL
24" Line #11 MP 282 E. Red River, LA
Princeton (12), IN
French Lick (13), IN
Seymour (14), IN
Batesville (15), IN
Blessing, TX
Booth, TX
Mont Belvieu, TX
Gillis, LA
Vidor, TX
Opelousas, LA
Accident, MD
Hempstead, TX
Provident City, TX

EXHIBIT C

CLASS A-3 SITES

Caillou Island, LA
Charco, TX
Grand Chenier, LA
Greenwood Field, LA
Iowa Plant, LA
Lake Providence, LA
Lake Raccourci, LA
Monroe, LA
Petronilla, TX
Pointe Au Chien, LA
Santa Fe, TX
Thomaston, TX
Tivoli, TX

- Exhibit K

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 7 1987

OFFICE OF
ENFORCEMENT AND
COMPLIANCE MONITORING

Honorable Frank Lautenberg
Chairman
Subcommittee on Superfund
and Environmental Oversight
Committee on Environment and
Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

I am writing in response to your letter of November 23, 1987, requesting information regarding the Texas Eastern Transmission Corporation's natural gas pipeline system.

As explained during the November 9, 1987 briefing held for your staff on the Agreement in Principle reached with Texas Eastern, intermittent venting of natural gas occurs at limited locations along the pipeline system as a part of normal operations. The Company has advised us that periodic venting of gas from pipeline equipment is a normal and necessary part of pipeline operations. Venting of gas to the atmosphere occurs in three primary situations: upon the shut-down and start-up of a pipeline compressor, and at the removal of a "pig" from the pipeline. In a venting episode, the particular piece of equipment to be vented is shut off from the pipeline and the limited amount of gas within the equipment is released to a vent stack. Except for a limited number of pig receivers located in fenced areas, the venting locations are located on each of the secured compressor station sites. Venting episodes may release limited quantities of liquids to the environment, including pipeline condensate potentially contaminated with PCBs, depending on the location and size of the equipment being vented.

EPA first became aware of the venting of natural gas from the pipeline in April, 1987 through settlement discussions with Texas Eastern and discussions with the State of Pennsylvania regarding a state consent agreement reached with the company.

Upon receipt of this information, the Agency immediately initiated action to include in the federal consent decree a comprehensive program by Texas Eastern to control the release of gas and liquids from the pipeline.

The consent decree presently being negotiated will include a requirement that Texas Eastern expeditiously implement a program to limit the amount of liquids discharged during venting episodes. As part of this program the company will be required to immediately institute operational and maintenance procedures to minimize the volume of liquids within the pipeline and ensure proper handling and disposal of removed liquids. Texas Eastern will expeditiously install permanent gas scrubber filters and a liquids collection system on all vent stacks along the pipeline to remove liquids from the vented gas. As an interim measure, the company will install equipment on the vent stacks to reduce the possible release of liquids during venting episodes until the permanent scrubber filters can be installed. The schedule for installation of control equipment will be the subject of further negotiation.

Our review of the environmental statutes indicates that the venting episodes described above may constitute violations of law. If liquids are discharged during venting which contain polychlorinated biphynels (PCB) in excess of 50ppm, this would constitute an improper disposal of PCBs in contravention of 40 CFR 761, a violation of the Toxic Substances Control Act (TSCA). In addition, the discharge of pipeline liquids during venting may constitute a violation of the Resource Conservation and Recovery Act (RCRA) depending on whether hazardous wastes are discharged. Present information indicates that no RCRA hazardous wastes are discharged during venting episodes. Further, if a reportable quantity of a hazardous substance pursuant to 40 CFR 117, Subpart C or 355.40 were discharged during venting, the failure to notify appropriate parties of the release would constitute a violation of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). It is the position of Texas Eastern that releases of liquids through venting from its natural gas pipeline are covered by the natural gas liquids exemption of Section 101(14) of CERCLA. While the Agency does not agree with the company's position on this issue, we are aware that the intermittent ventings to the environment will continue to occur until the control measures to be implemented under the consent decree are in place. It is our view that elimination of these discharges to the environment through the proposed settlement is the most appropriate means of addressing this problem.

Although there is no statutory requirement for the Agency to notify a state of the liquids released, our enforcement staff advised staff of the affected states of the source control program on November 9, 1987, as part of the information briefing regarding the Agreement in Principle. Pennsylvania and New Jersey contacts have been aware for some time of this venting and our efforts to include a remediation program in the federal settlement.

I hope that this has been responsive to your request. If you have additional questions regarding this matter, you or your staff my contact Frederick F. Stiehl, Associate Enforcement Counsel, at 382-4544 for additional information.

Sincerely,

Thomas L. Adams Jr

Thomas L. Adams, Jr.
Assistant Administrator

Exhibit L

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D. C. 20426

CHAIRMAN

December 16, 1987

Dear Chairman Lautenberg:

Thank you for your letter of November 16, 1987, concerning PCB cleanup costs by Texas Eastern Gas Pipeline Company (Texas Eastern).

The Federal Energy Regulatory Commission will take all necessary steps under the law and the Commission's regulations to ensure that any request by Texas Eastern to pass on PCB cleanups will be thoroughly investigated.

On September 21, 1987, Texas Eastern filed certain information with the Commission relating to its past PCB costs. That filing was forwarded to the Subcommittee on Superfund and Environmental Oversight on November 25, 1987. Information about future costs will be forwarded to the Subcommittee as it is provided by Texas Eastern.

The amount of direct and indirect costs associated with the contamination problem which has already been passed on through rates by Texas Eastern is also reflected in Texas Eastern's September 21 letter.

Cost information regarding any previous pass-through of costs associated with PCB cleanup by Transwestern Pipeline Company is not available at this time. I have directed the Commission staff to request this information from Transwestern. Such information will be forwarded to the Subcommittee when it is filed with the Commission.

I hope this information is helpful to you. If I can be of further assistance to you in this or any other Commission matter, please let me know.

Sincerely,

Martha O. Hesse

Honorable Frank R. Lautenberg
Chairman, Subcommittee on
  Superfund and Environmental Oversight
Committee on Environmental and Public Works
United States Senate
Washington, D.C. 20510

Exhibit M

FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, D. C. 20426

November 23, 1987

Honorable Frank R. Lautenberg
Chairman
Subcommittee on Superfund and
Environmental Oversight
United States Senate
Washington, D.C. 20510

Dear Senator Lautenberg:

Thank you for your letter dated November 16, 1987, regarding the Texas Eastern Pipeline. This matter is currently being reviewed by the Commission's Office of Pipeline and Producer Regulation.

I appreciate your interest and want to assure you that a complete response will be forthcoming as soon as possible.

In the meantime, if you have additional questions on this or any other Commission matter, please contact our Congressional Liaison staff at (202) 357-8373.

Sincerely,

J. M. Kennedy

J. M. Kennedy
Director
Congressional Affairs

United States
Environmental Protection
Agency

Office of
Public Affairs (A-107)
Washington DC 20460

EPA

Natural Gas Pipeline Task Force Report

Exhibit N

FOR RELEASE: MONDAY, NOVEMBER 9, 1987

The U.S. Environmental Protection Agency has reached an "agreement in principle" with the Texas Eastern Gas Pipeline Co. for complete evaluation of contamination and cleanup of soils and disposal pits at some 89 sites along its 10,000 miles of interstate natural gas pipeline. EPA estimates that the final cleanup costs to the company will set a record for an agency-negotiated settlement.

In addition to the cleanup costs, the company will pay penalties of $15 million and reimburse the agency for costs associated with the case.

The result of six months of negotiations between EPA and Texas Eastern, the agreement announced today is the first step toward cleanup of those sites at pipeline pumping stations where the company had drained PCB-contaminated liquids into pits. The agreement also calls for extensive off-site testing of soils and groundwater monitoring.

The agreement in principle will form the basis for a final, binding consent decree that will be filed in federal court in Houston after it is agreed to and signed by all parties.

As part of the investigation of PCB dumping by Texas Eastern, EPA and several states tested soils, sediments and water at the disposal pits along the pipeline, which runs through 14 states. Although these tests found PCB contamination at some of the sites, none of the sites was found to present an immediate

(more)

TEXAS EASTERN PIPELINE SAMPLING DATA

NATURAL GAS PIPELINE TASK FORCE
U.S. EPA

November 1987

Beginning in February of 1987, staff from U.S. EPA and several states conducted site assessments at compressor station sites along the Texas Eastern natural gas pipeline where improper disposal of PCB-contaminated pipeline liquids had occurred. All of the sites listed in Table 1 were visited by EPA or state staff. Conditions at the sites were assessed during the initial site visit to determine the need for short term control actions such as further limiting access to the site or measures to prevent runoff. For the most part, the sites are in remote areas with no residences nearby. Most sites are securely fenced and access-controlled. The sites present no immediate public health risk.

Sampling was not deemed necessary and/or productive at 24 of the 78 sites, based on assessments by EPA or state staff. Sampling was conducted at the remaining sites. PCB analysis was done in all cases. Analysis for dioxins and furans was undertaken at 31 sites. These analyses were targeted at sites where there were indications that materials in the disposal pits had been burned; dioxins and furans can be byproducts of incomplete combustion of PCBs. Analyses were also done for other hazardous wastes — benzene, toluene, etc. — at many of the sites. Sites in Maryland, Pennsylvania, Indiana, Illinois and Louisiana were assessed by the states. Sites in the remaining states were assessed by EPA staff, in some cases accompanied by state personnel.

Table 1 is a summary of the highest reported concentrations of PCBs and non-dioxin organics at the Texas Eastern sites. Table 2 summarizes all reported data on dioxins and furans at the sites. Note that values in Table 2 have been translated into toxic equivalents of tetrachlorodibenzodioxin (TCDD) -- the most toxic dioxin isomer and the one most people mean when they use the general term "dioxin".

Levels of PCBs between 3,000 and 6,000 parts per million were found at seven sites ranging from Texas to Pennsylvania. In most cases, the highest concentrations were found in samples from the bottoms of disposal pits; in a few cases, high concentrations were found in surface soils in areas where PCB-contaminated condensate was drained from the pipeline.

At most sites, the levels of PCBs were fairly low. However, even though sampling was targeted to site locations expected to have the highest concentrations (e.g., disposal pits), full characterization of the sites cannot be assured based on a small number of samples.

TABLE 1

TEXAS EASTERN PIPELINE DATA
HIGHEST REPORTED CONCENTRATIONS OF PCBs & NON-DIOXIN ORGANICS
October 1987

Region	Site Name	Visited By/ Sampled By	Results[1]	Estimated Distance Of Nearest Residential DWW	Comments
02	Lambertville, NJ	EPA	DWW = PCBs non-detectable Soil = 74 ppm PCBs on-site	200 ft.	
02	Linden, NJ	EPA	Soil = PCBs non-detectable on-site	-	
03	Accident, MD	MD	Sludge = 38.2 ppm PCB	1,300 ft.	
03	Uniontown, PA	PA	DWW = PCBs non-detectable Stream = PCBs non-detectable Sediment = .37 ppm PCBs on-site SW = PCBs non-detectable	500 ft.	
03	Connellsville, PA	PA	Stream = .001 ppm PCBs Sediment = 10 ppm PCBs on-site	1,300 ft.	
03	Perulack, PA	PA	DWW = PCBs non-detectable Stream = .04 ppm PCBs off-site .01 ppm PCBs on-site Sediment = 25 ppm PCBs off-site 58 ppm PCBs on-site	500 ft.	
03	Rockwood, PA	PA	DWW = PCBs non-detectable Stream Water = PCBs non-detectable on and off-site Stream Sediment = PCBs non-detectable on and off-site	280 ft.	

See the last page for definitions.

Region	Site Name	Visited By/ Sampled By	Results	Estimated Distance Of Nearest Residential DWW	Comments
03	Lilly, PA	PA	Spring = .03 ppm PCBs on-site .01 ppm benzene on-site .04 ppm xylenes on-site Sediment = 240 ppm PCBs on-site .1 ppm PCBs off-site Stream = .001 ppm PCBs off-site .01 ppm PCBs on-site	2,000 ft.	
03	Marietta, PA	PA	DWW = PCBs non-detectable Sediment = PCBs non-detectable off-site	1,300 ft.	
03	Wind Ridge, PA	PA	DWW = PCBs non-detectable SW = PCBs non-detectable Sediment = .32 ppm PCBs off-site PCBs non-detectable on-site	1,300 ft.	
03	Holbrook, PA	PA	Spring = .001 ppm PCBs on-site Ditch = .003 ppm PCBs on-site Stream = PCBs non-detectable on-site Sediment = 5,800 ppm PCBs on-site	1,300 ft.	
03	Eagle, PA	PA	DWW = PCBs non-detectable SW = PCBs non-detectable Sediment = 7 ppm PCBs off-site	1,300 ft.	
03	Grantville, PA	PA	Soil = 5,900 ppm PCBs onsite PCBs non-detectable off-site DWW = PCBs non-detectable Sediment = .23 ppm PCBs off-site	800 ft.	
03	Shermansdale, PA	PA	DWW = PCBs non-detectable Sediment = .37 ppm PCBs off-site	1,300 ft.	

Region	Site Name	Visited By/ Sampled By	Results	Estimated Distance Of Nearest Residential DWW	Comments
03	Delmont, PA	PA	Spring = PCBs non-detectable (residential) DWW = PCBs non-detectable Stream = PCBs non-detectable off-site Sediment = 38 ppm PCBs off-site 140 ppm PCB on-site	600 ft.	
03	Bedford, PA	PA	DWW = PCBs non-detectable Stream = PCBs non-detectable Sediment = 33 ppm PCBs off-site	700 ft.	
03	Chambersburg, PA	PA	DWW = PCBs non-detectable .002 ppm 1,1,1 trichloroethane Spring = PCBs non-detectable	800 ft.	
03	Armagh, PA	PA	DWW = PCBs non-detectable SW = .0004 ppm PCBs Stream = PCBs non-detectable off-site .0005 ppm PCBs on-site Sediment = 11 ppm PCBs on-site	300 ft.	
03	Leidy, PA	PA			No pits. No samples taken.
03	Entriken, PA	PA	Spring = PCBs non-detectable off-site .002 ppm 1,1,1 trichloroethane off-site SW = .62 ppm PCBs Stream = .01 ppm PCBs off-site PCBs non-detectable on-site	2,650 ft.	

Region	Site Name	Visited By/ Sampled By	Results	Estimated Distance Of Nearest Residential DWW	Comments
03	Bechtelsville, PA	PA	DWW = PCBs non-detectable Stream = .0004 ppm PCBs off-site Sediment = .49 ppm PCBs off-site SW = PCBs non-detectable DWW = .23 ppm trichloroethylene	2,000 ft.	
04	Danville, KY	EPA	Soil = 3,200 ppm PCBs Stream Sediment = 1,300 ppm PCBs Stream Water = .02 ppm PCBs Creek Sediment = 370 ppm PCBs off-site	1,050 ft.	
04	Owingsville, KY	EPA	Stream Sediment = PCBs non-detectable Soil = 390 ppm PCBs on-site PCBs non-detectable in background Sediment = 920 ppm PCBs on-site	300 ft.	
04	Tompkinsville, KY	EPA	Sediment = 960 ppm PCBs on-site Subsurface soil = 77 ppm PCB on-site	1,300 ft.	
04	Mt. Pleasant, TN	EPA	Stream Sediment = PCBs non-detectable Soil = PCBs non-detectable in background 14 ppm PCBs in pit DWW = .0041 ppm toluene	800 ft.	
04	Gladeville, TN	EPA	Sediment = 760 ppm PCBs in pit Stream Sediment = PCBs non-detectable	420 ft.	

Region	Site Name	Visited By/ Sampled By	Results	Estimated Distance Of Nearest Residential DWW	Comments
04	Barton, AL	EPA			No samples taken. No DWW in area. Remote site.
04	Clinton, MS	EPA			No samples taken. No DWW in area. Remote site.
04	Kosciusko, MS	EPA	Stream Sediment = 62 ppm PCBs Sediment = 300 ppm PCBs in pit .027 ppm benzene in pit .029 ppm ethylbenzene 49 ppm phenol Soil = PCBs non-detectable in background	2,100 ft.	
04	Egypt, MS	EPA	Soil = 380 ppm PCBs in pit 12 ppm PCBs in background	2,650 ft.	
04	Yazoo City, MS	EPA			No samples taken. No DWW in area. Remote site.
04	Union Church, MS	EPA			No samples taken. No DWW in area. Remote site.

Region	Site Name	Visited By/ Sampled By	Results	Estimated Distance Of Nearest Residential DWW	Comments
05	Athens, OH	EPA	Soil = 4,500 ppm PCBs on-site	1,300 ft.	
05	Berne, OH	EPA	Soil = 22 ppm PCBs on-site	1,300 ft.	
05	Crooksville, OH	EPA		-	No samples taken. Remote area; pits backfilled and grassed over.
05	Lebanon, OH	EPA		-	No samples taken. Pit backfilled; nearby residences on public water supply.
05	Sarahsville, OH	EPA		-	No samples taken. Pit backfilled and grassed over.
05	Circleville, OH	EPA		-	No samples taken. Remote area. Pit backfilled and grassed over.
05	Wheelersburg, OH	EPA	Soil = 8.5 ppm PCBs on-site	1,300 ft.	

Region	Site Name	Visited By/ Sampled By	Results	Estimated Distance Of Nearest Residential DWW	Comments
05	French Lick, IN	IN		-	No samples taken.
05	Princeton, IN	IN		-	No samples taken.
05	Seymour, IN	IN		-	No samples taken.
05	Batesville, IN	IN		-	No samples taken.
05	Norris City, IL	IL	Soil = 8 ppm PCBs in pit	900 ft.	
05	Lick Creek, IL	IL	Soil = 8 ppm PCBs in pit .04 ppm benzene .03 ppm toluene .07 ppm 2-butanone .08 ppm ethylbenzene .13 ppm xylenes	7,900 ft.	
06	Mt. Belvieu, TX	EPA	Soil = PCBs non-detectable in pit	100 ft.	
06	Blessing, TX	EPA	Soil = PCBs non-detectable in pit 5.4 ppm toluene in pit 17 ppm ethylbenzene in pit .93 ppm benzene in pit 50 ppm xylenes in pit	5,300 ft.	

Region	Site Name	Visited By/ Sampled By	Results	Estimated Distance Of Nearest Residential DwW	Comments
06	Joaquin, TX	EPA	Soil = 3,000 ppm PCBs in pit 2.7 ppm ethylbenzene in pit 2.5 ppm toluene in pit 25 ppm xylenes in pit	2,650 ft.	
06	Booth, TX	EPA	Soil = PCBs non-detectable in pit and background	5,300 ft.	
06	Longview, TX	EPA	Soil = 1.3 ppm PCBs in pit 32 ppm toluene in pit 23 ppm benzene in pit 7.7 ppm ethylbenzene in pit 69 ppm xylenes in pit	13,200 ft.	
06	Atlanta, TX	EPA	Soil = 196 ppm PCBs in pit 4.8 ppm ethylbenzene in pit 5.1 ppm benzene in pit PCBs non-detectable in background	2,650 ft.	
06	Vidor, TX	EPA	Soil = PCBs non-detectable in pit and background 12 ppm toluene in pit 5 ppm ethylbenzene in pit 9.8 ppm benzene in pit 22 ppm xylenes in pit	2,650 ft.	

Region	Site Name	Visited By/ Sampled By	Results	Estimated Distance Of Nearest Residential DWW	Comments
06	Thomaston, TX[2]	EPA			No samples taken.
06	Charco, TX[2]	EPA			No samples taken.
06	Fagus, AR[2]	EPA		26,400 ft.	No samples taken.
06	Huntsville, TX	EPA			No samples taken. No pits.
06	Little Rock, AR	EPA	Soil = 1.3 ppm PCBs in pit	5,300 ft.	
06	Hope, AR	EPA	Soil = 180 ppm PCBs in pit 34 ppm xylenes in pit 8.7 ppm benzene in pit 15 ppm toluene in pit 4.7 ppm ethylbenzene in pit	2,650 ft.	
06	Donaldson, AR	EPA	Soil = PCBs non-detectable in background .51 ppm PCBs in pit .004 ppm benzene in pit	10,550 ft.	
06	Egypt, AR	EPA	Soil = PCBs non-detectable in pit and background 2.8 ppm ethylbenzene in pit	2,650 ft.	

[2] These sites were discovered late in the assessment process. All sites were visited to assess potential for exposure in the short term; no short term threats were found to exist. Staff assessing the sites determined that sampling was not required at this time.

Region	Site Name	Visited By/ Sampled By	Results	Estimated Distance Of Nearest Residential DWW	Comments
06	Bald Knob, AR	EPA	Soil = 37 ppm PCBs in pit 4.2 ppm xylenes in pit PCBs non-detectable in background	900 ft.	
06	St. Francisville, LA	LA	Soil = 3,248 ppm PCBs in pit	2,650 ft.	
06	New Roads, LA	LA	Soil = 2.29 ppm PCBs in pit	5,300 ft.	
06	White Castle, LA	LA	Soil = 4,969 ppm PCBs surface	5,300 ft.	
06	La Rose, LA	LA	Soil = PCBs non-detectable in background 17 ppm PCBs in pit	2,650 ft.	
06	Opelousas, LA	LA	Soil = PCBs non-detectable in pit	1,300 ft.	
06	W. Monroe, LA	LA	Soil = PCBs non-detectable in pit	2,650 ft.	
06	Castor, LA	LA	Soil = PCBs non-detectable in pit	5,300 ft.	

Region	Site Name	Visited By/ Sampled By	Results	Estimated Distance Of Nearest Residential DWW	Comments
06	Gillis, LA	LA	Soil = PCBs non-detectable in pit 1.2 ppm ethylbenzene	900 ft.	
06	Grand Chenier, LA	LA	Sludge = PCBs non-detectable in pit	-	
06	M.P. 5.28, LA[2]	LA			No samples taken.
06	M.P. 282.28, LA[2]	LA			No samples taken.
06	Greenwood Field,[2] LA	LA			No samples taken.
06	Iowa Plant, LA[2]	LA			No samples taken.
06	Lake Providence,[2] LA	LA			No samples taken.
06	M.P. 281.61, LA[2]	LA			No samples taken.
07	Oran, MO	EPA	DWW = PCBs non-detectable	530 ft.	
07	M.P. 9.81, MO	EPA			No samples taken. Pit filled. Remote area. No DWW nearby.

[2] These sites were discovered late in the assessment process. All sites were visited to assess potential for exposure in the short term; no short term threats were found to exist. Staff assessing the sites determined that sampling was not required at this time.

Sample Chart Definitions

DWW = Drinking Water Well
SW = Station Well: on-site well; water used for production processes
On-site = Within the fenced property boundaries
Off-site = Outside the property boundaries, usually within 200 ft. of the property boundaries
Soil = Surface soils or near surface (@1-3 ft.) soils in the general vicinity of disposal pits or other areas of condensate disposal.
Stream Sediments = Deposits of waterborne soils in stream beds.
Non-stream Sediments = Deposits of waterborne soils, usually resulting from runoff.
Pit = Disposal pits, ponds or lagoons. At some sites, pits were backfilled and grassed over; samples were taken at approximate pit locations.
Sludge = Wet soils found at the bottom of disposal pits, usually mixed with some oily materials
ppm = Parts per million
ppb = Parts per billion
Non-detectable = Not found in the sample. See discussion of quantitation limits, below.

Quantitation Limits:

The quantitation limit for individual constituents in a sample is a function of the analytical method and instrumentation used, and the nature of the sample. Constituents can commonly be detected at concentrations below the quantitation limit, but the amount of the constituent present can only be estimated in such cases.

The lower quantitation limits for PCB analyses are as follows: Region 2: 0.2 ppb in water, 0.08 ppm in soil; Region 3: Pennsylvania - 1.0 ppm in soil, 0.2 ppb in water, Maryland - 1.0 ppm in soil, 10 ppb in water; Region 4: 0.5 2.0 ppm in water, .084 ppm in soil; Region 5: .08 ppm in soil; Region 6: .08 ppm in soil; Region 7: 0.3 ppm in water.

The potential hazard associated with PCBs can vary considerably depending on site characteristics, potential for exposure, etc. For reference, the Agency's recently-issued PCB Spill Clean Up Policy calls for removal of PCBs to 25 ppm in inaccessible areas, and 10 ppm with clean fill cover in accessible areas.

TABLE 2

TEXAS EASTERN PIPELINE DATA
DIOXINS AND FURANS
October 1987

TCDD, TCDF = Tetrachlorodibenzodioxin, tetrachlorodibenzofuran
PCDD, PCDF = Pentachlorodibenzodioxin, pentachlorodibenzofuran
HxCDD, HxCDF = Hexachlorodibenzodioxin, hexachlorodibenzofuran
HpCDD, HpCDF = Heptachlorodibenzodioxin, heptachlorodibenzofuran
OCDD, OCDF = Octachlorodibenzodioxin, octachlorodibenzofuran

ND = Not detectable.

	Site	Measured Concentrations of Dioxin & Furan Isomers	Toxic Equivalency (TCDD Equivalence)
1.	Lambertville, NJ	.19 ppb TCDD	.2 ppb
2.	Grantville, PA	.019 ppb TCDD	.02 ppb
3.	Danville, KY	.83 to 4 ppb OCDD	0 ppb
4.	Owingsville, KY	.21 ppb TCDF 3.4 to 4.4 ppb OCDD	.02 ppb 0 ppb
5.	Tompkinsville, KY	ND	
6.	Mt. Pleasant, TN	ND	
7.	Gladeville, TN	.89 ppb TCDF 1.0 to 2.9 ppb OCDD	.09 ppb 0 ppb
8.	Kosciusko, MS	ND	
9.	Egypt, MS	ND	
10.	Wheelersburg, OH	ND	
11.	Berne, OH	ND	
12.	Hope, AR	.78, .28, .64 ppb OCDD	0 ppb
13.	Bald Knob, AR	1.1, 8.4, 3.1 ppb OCDD	0 ppb
14.	Donaldson, AR	3.6, 3.8 ppb OCDD	0 ppb
15.	Egypt, AR	2.1 ppb OCDD	0 ppb

	Site	Measured Concentrations of Dioxin & Furan Isomers	Toxic Equivalency (TCDD Equivalence)
16.	Joaquin, TX	.62, .083 ppb TCDF	.06, .008 ppb
		.43 ppb PCDF	.04 ppb
		.04 ppb HxCDF	.004 ppb
		2.7, 2.5, 1.5 ppb OCDD	0 ppb
17.	Atlanta, TX	1.3, 2.1 ppb OCDD	0 ppb
18.	Vidor, TX	18 ppb OCDD	0 ppb
		2.1 ppb PCDF	.2 ppb
		1.24, 7.2 ppb HxCDF	.01, .07 ppb
		4.6, 13.4 ppb HpCDF	.005, .01 ppb
		8.1, 26.1 ppb OCDF	0 ppb
19.	Mt. Belvieu, TX	1.8, .21 ppb HpCDD	.002, .0002 ppb
		4.1, .62 ppb OCDD	0 ppb
		.14 ppb HxCDF	.001 ppb
		.61 ppb HpCDF	.0006 ppb
		.62 ppb OCDF	0 ppb
20.	Booth, TX	.049 ppb TCDD	.05 ppb
		.065 ppb OCDD	0 ppb
21.	Blessing, TX	ND	
22.	Longview, TX	.6, 3.7 ppb OCDD	0 ppb
23.	St. Francisville, LA	.09, .11, .17 ppb HpCDD	.00009, .0001, .0002 p
		16.3, 13.8, 4.9, 3.4 ppb OCDD	0 ppb
		.23, 3.3, 3.6 ppb TCDF	.02, .3, .4 ppb
		.79, 1.0 ppb PCDF	.08, .1 ppb
24.	New Roads, LA	.034 ppb HpCDD	.00003 ppb
		3.4, 1.1, 1.0 ppb OCDD	0 ppb
25.	White Castle, LA	.087 ppb HpCDD	.00009 ppb
		.44, .38, .59 ppb OCDD	0 ppb
		2.0, 1.1 ppb TCDF	.2, .1 ppb
		.6 ppb PCDF	.06 ppb
26.	La Rose, LA	.97 ppb OCDD	0 ppb
27.	Opelousas, LA	.39, .76, .44 ppb OCDD	0 ppb

	Site	Measured Concentrations of Dioxin & Furan Isomers	Toxic Equivalency (TCDD Equivalence)
28.	W. Monroe, LA	6.4 ppb OCDD	0 ppb
29.	Castor, LA	6.2, 8.5 ppb OCDD	0 ppb
30.	Gillis, LA	3.3, 2.2 ppb OCDD	0 ppb
31.	Grand Chenier, LA	ND	

NOTES:

o ppb = parts per billion

o Dioxin and furan samples were soil samples from pits on station sites.

o Quantitation limits for individual constituents in a sample are a function of the analytical method and instrumentation used, and the nature of the sample. Constituents can often be detected at concentrations below the quantitation limits, but our assurance in the accuracy of the number is considerably less.

Lower quantitation limits for TCDD analyses by EPA labs and EPA contract labs are as follows: New Jersey and Ohio sites = 0.1 ppb; Kentucky, Tennessee, Mississippi, Arkansas, Texas and Louisiana sites = 0.01 ppb. Pennsylvania did not report a quantitation limit for samples it analyzed.

Lower quantitation limits for the other dioxin and furan isomers detected are: TCDF = .11 ppb; PCDD = .7 ppb, PCDF = .33 ppb; HxCDD = 1.25 ppb, HxCDF = .83 ppb; HpCDD = 1.87 ppb; OCDD = 2.35 ppb. There is no method validation information for HpCDF or OCDF, and therefore no general quantitation limits available.

o The calculation of toxic equivalence is based on the approach described in the "Interim Procedures For Estimateing Risks Associated With Exposures To Mixtures Of Chlorinated Dibenzo-p-Dioxins and - Dibenzofurans (CDD and CDF)", EPA/625-3-87/012, March 1987) and adopted as Agency policy by the Administrator on January 7, 1987.

Exhibit O

TEXAS EASTERN
Gas Pipeline Company
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

F. L. COHAGAN
DIRECTOR — FIELD OPERATIONS

February 26, 1981

Mr. John Seitz
Environmental Protection Agency
401 M Street, S.W. (EN342)
Washington, D.C. 20460

Dear Mr. Seitz:

Interstate Natural Gas Association of America (INGAA) has advised us that you have requested a written statement from each INGAA member company pertaining to compliance with EPA regulations prohibiting the use of lubricants containing PCB compounds after May 1, 1980 (40 CFR 761; Section 761.31 (i)). The purpose of this letter is to respond to that request.

Texas Eastern Transmission Corporation initially began using synthetic PCB compound lubricating oil in remote controlled gas turbine units in 1958 because of their fire retardant characteristics. Through October 31, 1970, such lubricants were installed in 24 turbine units at 19 locations. Following notification by the manufacturers in January 1972, that the lubricant contained PCB's which tend to persist in the environment, no additional lubricant was purchased. In April, 1972, phase out of the lubricant was initiated. Each unit was drained, flushed out, and a non-PCB lubricant installed. Three units were changed out in 1972, 5 units in 1973, 3 units in 1975, 6 units in 1976, and 7 units in 1977, with the last unit being changed out on October 20, 1977. A second drain and change out of lubricating oil, completed in 1978 (except for one unit on January 10, 1979), was necessary in order to bring all residual concentrations to below 50 PPM. All units were below the 50 PPM level prior to the May 1, 1980 effective date of the PCB regulations. Unfortunately, monitoring of the units has revealed a tendency for the PCB readings related to the residual concentrations of PCB's in the units to increase over a period of time. As a result, it has been necessary to drain and change out the oil in some units a third time, and as discussed with you by telephone on February 19, 1981, we are presently in the process of draining and changing out the oil in some units again, some for the fourth time. Each change out requires an interruption in our operation and is of course an expensive undertaking.

On our Transwestern Pipeline Company system, the PCB lubrication oil was installed in only one gas turbine unit in June, 1968. This unit was drained, flushed out, and replaced with a non-PCB lubricant in December, 1972. In September, 1978, the oil in this unit was again changed out to bring the residual PCB level to below 50 PPM, where it has since been maintained.

Utilization of PCB compounds in gas compression equipment was limited to use of the synthetic lubricant in the closed lubrication systems of gas turbine-centrifugal compressor facilities. Where required, removed PCB lubricants have been collected and stored in compliance with applicable EPA regulations (40 CFR Part 761). Disposal of the stored lubricant will be made when EPA approved incineration disposal facilities are available.

We trust this will provide you with the information requested. Please be assured of our continued cooperation in this matter.

Very truly yours,

F.L. Cohagan
F. L. Cohagan

cc: Mr. L. J. Ogden - INGAA

– Exhibit P

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR 26 1982

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mr. F. L. Cohagen
Vice President - Operations
Texas Eastern Gas Pipeline Company
P. O. Box 2521
Houston, TX 77001

Dear Mr. Cohagen:

In my November 9, 1981, letter to you I indicated that I would communicate with you further concerning the issue of PCB levels in certain of your natural gas pipeline compressors.

As you know, EPA inspections conducted at a number of your compressor facilities last spring identified PCB levels greater than 50 parts per million (ppm) in the lubricating oil of nine (9) turbine compressors. Since the authorization for use of PCBs in compressors ended May 1, 1980 [PCB Rule - 40 CFR 761.31(i)], this use of PCBs is in violation of section 15 of the Toxic Substances Control Act (TSCA).

Your June 12, 1981, response to our request for information on your use of PCBs in compressors detailed your company's program for complying with the PCB Rule. Based on your good faith efforts to comply with the PCB Rule, the amount of money expended during this program both before and after May 1, 1980, and your company's extensive participation in the EPA/natural gas industry cooperative sampling and remedial measures programs, the Agency has used its discretion in not applying any enforcement remedies for these violations. This approach is in keeping with our cooperative effort to remedy PCB contamination of gas lines and the intent of Congress for the administration of TSCA as stated in Section 2(c).

The unresolved problem in this matter is that PCB levels in some of your turbine compressors increase to concentrations of 50 ppm or greater after several months of use subsequent to decontamination procedures. The Agency has evaluated several options for bringing these units into compliance and concluded that the best option would be to formalize a compliance schedule. This compliance schedule would be negotiated in the same manner as the remedial program and would include monitoring, decontamination measures, and timeframes for these activities and for final compliance. We feel that this is the most prudent approach for solving this problem in an efficient and reasonable manner.

In order to quickly initiate this program, I suggest that my staff meet with you at the earliest possible date to discuss this matter. Please contact John Seitz at 202-755-0630, to schedule this meeting, or to discuss this proposal further.

Sincerely yours,

A. E. Conroy II

A. E. Conroy II, Director
Pesticides and Toxic Substances
Enforcement Division

Exhibit Q

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN RE:	TSCA Docket No. 82 - H - 01
TEXAS EASTERN TRANSMISSION CORPORATION P.O. 2521 Houston, Texas 77001	
Respondent.	
PROCEEDINGS UNDER 15 USC § 2615(a)(2) and 40 CFR 22	

CONSENT ORDER

PRELIMINARY STATEMENT

1. This proceeding for the assessment of a civil penalty was instituted pursuant to Section 16 of the Toxic Substances Control Act, 15 U.S.C. 2601 et seq. (TSCA). The proceeding was instituted by the issuance of a Complaint and Notice of Opportunity for Hearin dated and served upon Texas Eastern Transmission Corporation (Respondent), on July 23, 1982. The Complaint charges that Respondent used polychlorinated biphenyls (PCBs) in violation of 40 CFR § 761.20(a), thereby violating Section 15(1)(C) of TSCA, 15 USC § 2614(1)(C).

2. For purposes of this proceeding, Respondent (1) admits the jurisdictional allegations of the Complaint; (2) neither admits nor denies the factual allegations contained in the Complaint; (3) neither concedes nor contests the Conclusions of Law contained in this Order; and (4) consents to the terms of this Order.

3. Respondent waives its right to request a hearing on any issue of law or fact set forth in the Complaint, including but not limited to its right under Section 16(a)(2)(A) of TSCA (15 USC § 2615(a)(2)(A)) to request a hearing within twenty (20) days of receipt of the Complaint.

FINDINGS OF FACT

1. Respondent is a domestic corporation incorporated under the laws of the State of Delaware.

2. Between February 12, 1981 and June 12, 1981, Respondent was conducting its business of natural gas transmission at Armagh, Bechtelsville, Bernville, Delmont, Entriken, Grantville, and Lilly, Pennsylvania; Barton, Alabama; Danville, Kentucky; Gladeville, Tennessee; Hanover, New Jersey; Kosciusko, Mississippi; and White Castle, Louisiana, and other locations.

3. During that period, Respondent was inspected by representatives of the U.S. Environmental Protection Agency (EPA) (Complainant), pursuant to Section 11 of TSCA (15 USC § 2610).

4. On June 12, 1981, Respondent, in response to an informational request from EPA, sent a letter to A. E. Conroy II, Director of the Pesticides and Toxic Substances Enforcement Division, of EPA's Office of Pesticides and Toxic Substances.

5. Information from the EPA inspections and Respondent's letter evidence that on sixteen (16) occasions, PCB levels in Respondent's compressors exceeded the 50 ppm limit after May 1, 1980. Respondent's June 12, 1981 letter indicates that only one exceedance of the 50 ppm limit remained when a subsequent sampling ("9th Analysis") was conducted by Respondent between February 3 and March 9, 1981.

6. Respondent has made good faith efforts to comply with the prohibition against use of PCBs in natural gas pipeline compressors. Even prior to enactment of TSCA, Respondent, in 1972, had commenced a program to phase out PCBs in its compressors. This program was accelerated in early 1976. Respondent conducted decontamination procedures which included draining PCB liquids and refilling with non-PCB liquid. Respondent participated in the EPA/natural gas industry sampling program to determine the extent and magnitude of its contamination problem.

Although the information Respondent submitted to EPA -- and upon which EPA relied in establishing its deadline -- indicated the requisite PCB removal from compressors could be achieved by May 1, 1980, subsequent findings indicated that additional draining and refilling not contemplated by the regulation was required. These findings were comparable to those relied upon by EPA in initially establishing a July 1, 1984 deadline for eliminating PCBs from heat transfer and hydraulic systems. See 40 CFR §761.31 (d) and (e); May 31, 1979 Preamble, 44 Fed. Reg. 31, 534; and Support Document, p. 100. Although EPA believed the total cost for PCB removal for all pipeline compressors would be approximately $200,000, Texas Eastern alone has expended to date over $3,000,000 in clean-up costs.

7. Respondent has at all relevant times acted in good faith and cooperated with EPA in attempts to gauge the extent of pipeline compressor contamination, and in implementing remedial measures.

8. Respondent has voluntarily instituted remedial measures including testing, draining, and other decontamination measures to remove PCBs from its gas pipeline compressors, as set forth in the Consent Agreement and Compliance Schedule, signed on AUG 3 1982, 1982 by both Complainant and Respondent.

CONCLUSIONS OF LAW

1. Respondent on sixteen occasions has violated Section 15(1)(C) of TSCA, 15 U.S.C. § 2614(1)(C), by failing to comply with a rule issued under Section 6 of TSCA, 15 U.S.C. 2605: 40 CFR Part 761, which prohibits the use of PCBs in an other than totally enclosed manner.

2. Findings of Fact No. 6, 7, and 8 constitute grounds for the remittance, with conditions, of the civil penalty assessed by this Order, such remittance being authorized under Section 16(a)(2)(C) of TSCA, 15 U.S.C. § 2615(a)(2)(C).

3. Provisions of the Consent Agreement executed on AUG 3 1982, 1982 set forth the specific conditions for the remittance of the civil penalty. If Respondent fails to comply with those conditions, the penalty can be reinstated without further proceedings regarding the issues of fact or of law set forth in the Complaint, the right thereto having been waived by Respondent.

ORDER

Pursuant to authority in Section 16(a)(2)(C) of TSCA, 15 U.S.C. § 2615(a)(2)(C), upon consideration of the above Findings of Fact and Conclusions of Law, upon consideration of the factors expressed in Section 16(a)(2)(B) of TSCA, 15 U.S.C. § 2615(a)(2)(B), and after consideration of the good faith exhibited by Respondent, it is this __ day of AUG 3 1982, 1982, ORDERED that: (1) Respondent comply with the terms of the Consent Agreement; (2) Respondent is assessed a civil penalty in the amount of $159,800, provided however, that EPA shall and hereby does wholly and fully remit the proposed civil penalty upon the condition that Respondent complies with the Consent Agreement; (3) If EPA determines that Respondent has not complied with the provisions of the Consent Agreement, EPA may issue a Notice of Reinstatement of Penalty; in which event, Respondent must pay the assessed civil penalty within sixty (60) days of receipt of such Notice of Reinstatement of Penalty, unless Respondent can demonstrate that it has complied with the provisions of the Consent Agreement. Such payment will be made by forwarding a cashier's or certified check payable to the United States of America in the amount of $159,800 to the Hearing Clerk (A-110), Environmental Protection Agency, Washington, D.C. 20460.

So Ordered

John A. Todhunter, Ph.D.
Assistant Administrator
for Pesticides
and Toxic Substances

AUG 3 1982

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN RE:) TSCA Docket No. 82 - H - 01
)
TEXAS EASTERN TRANSMISSION CORPORATION)
P.O. 2521)
Houston, Texas 77001)
)
Respondent.)
)
PROCEEDINGS UNDER 15 USC § 2615(a)(2))
and 40 CFR 22)

CONSENT AGREEMENT AND COMPLIANCE SCHEDULE

PURPOSE

The purpose of this Agreement is to (1) settle all matters raised by the Complaint, (2) remit, with conditions, the civil penalty proposed in the Complaint and assessed by the Consent Order signed by John A. Todhunter, Ph.D., Assistant Administrator for Pesticides and Toxic Substances, and (3) bring Respondent's natural gas pipeline compressors into compliance with the PCB rule, 40 CFR Part 761. With respect to this Agreement, Respondent neither admits nor denies the factual allegations, and neither concedes nor contests the Conclusions of Law set forth below.

FINDINGS OF FACT

1. Respondent is a domestic corporation incorporated under the laws of the State of Delaware.

2. Between February 12, 1981 and June 12, 1981 Respondent was conducting its business of natural gas transmission at Armagh, Bechtelsville, Bernville, Delmont, Entriken, Grantville, and Lilly, Pennsylvania; Barton, Alabama; Danville, Kentucky; Gladeville, Tennessee; Hanover, New Jersey; Kosciusko, Mississippi; and White Castle, Louisiana and other locations.

3. During that period, Respondent was inspected by representatives of the U.S. Environmental Protection Agency (EPA) (Complainant), pursuant to Section 11 of TSCA (15 USC § 2610).

4. On June 12, 1981, Respondent, in response to an informational request from EPA, sent a letter to A. E. Conroy II, Director of the Pesticides and Toxic Substances Enforcement Division, of EPA's Office of Pesticides and Toxic Substances.

5. Information from the EPA inspections and Respondent's letter evidence that on sixteen (16) occasions, PCB levels in Respondent's compressors exeeded the 50 ppm limit after May 1, 1980. Respondent's June 12, 1981, letter indicates that one exceedence of the 50 ppm limit remained when a subsequent sampling ("9th Analysis") was conducted by Respondent between February 3 and March 9, 1981.

6. Respondent has made good faith efforts to comply with the prohibition against use of PCBs in natural gas pipeline compressors. Even prior to enactment of TSCA, Respondent, in 1972, had commenced a program to phase out PCBs in its compressors. This program was accelerated in early 1976. Respondent, conducted decontamination procedures which included draining PCB liquids and refilling with non-PCB liquid. Respondent participated in the EPA/natural gas industry sampling program to determine the extent and magnitude of its contamination problem.

Although the information Respondent submitted to EPA -- and upon which EPA relied in establishing its deadline -- indicated the requisite PCB removal from compressors could be achieved by May 1, 1980, subsequent findings indicated that additional draining and refilling not contemplated by the regulation was required. These findings were comparable to those relied upon by EPA in initially establishing a July 1, 1984 deadline for eliminating PCBs from heat transfer and hydraulic systems. See 40 CFR § 761.31 (d) and (e); May 31, 1979 Preamble, 44 Fed. Reg. 31, 534; and Support Document, p. 100. Although EPA believed the total cost for PCB removal for all pipeline compressors would be approximately $200,000, Texas Eastern alone has expended to date over $3,000,000 in clean-up costs.

7. Respondent has at all relevant times acted in good faith and cooperated with EPA in attempts to gauge the extent of pipeline compressor contamination, and in implementing remedial measures.

CONCLUSIONS OF LAW

1. Respondent on sixteen occasions has violated Section 15(1)(C) of TSCA, 15 U.S.C. § 2614(1)(C), by failing to comply with a rule issued under Section 6 of TSCA, 15 U.S.C. 2605: 40 CFR Part 761, which prohibits the use of PCBs in an other than totally enclosed manner.

2. Findings of Fact No. 6 & 7 constitute grounds for the remittance with conditions of the civil penalty assessed in this matter, such remittance being authorized under Section 16(a)(2)(C) of TSCA, 15 U.S.C. § 2615(a)(2)(C).

3. Provisions of the Consent Agreement executed on August 4, 1982, set forth the specific conditions for remittance. If Respondent fails to comply with those conditions, the penalty

can be reinstated without further proceedings regarding the issues of fact or of law set forth in the Complaint, the right thereto having been waived by Respondent.

COMPLIANCE SCHEDULE

1. FINAL COMPLIANCE: It is the goal of this Compliance Schedule to bring all natural gas pipeline compressors operated by Texas Eastern into final compliance within eighteen (18) months of the effective date of this Agreement. A compressor will be deemed to be in compliance when the PCB level in the compressor is less than 50 ppm. This determination shall be based on analytical tests of the compressor lubricating oil sampled after the compressor has been in operation a minimum of six (6) months after the last decontamination of the compressor.

2. INITIAL TESTING: In order to determine which compressors must be decontaminated, Texas Eastern shall test each natural gas pipeline compressor operated by Texas Eastern which ever contained PCBs as indicated by the June 12, 1981 letter. The initial testing shall be conducted by Texas Eastern within thirty (30) days of the effective date of this Agreement. For purposes of this initial testing, tests conducted on these compressors within six (6) months prior to the effective date of this Agreement shall meet the requirements of this Part. Any compressor(s) which have been decontaminated within the six (6) months prior to the effective date of this Agreement will automatically be included in this program until it is shown that these compressor(s) meet the requirement for final compliance in Part 1.

3. SAMPLING AND ANALYSIS: Sampling shall be conducted by Texas Eastern using EPA-approved sampling procedures. Information on sampling developed by EPA and provided to Texas Eastern as part of the EPA/natural gas industry cooperative sampling program shall serve as guidance for this sampling.*

To allow for comparison of analytical results, Texas Eastern shall prepare a Sampling Plan which specifies sample volume, method of collection, and sample handling procedures. The Sampling Plan shall set forth (a) the location of each compressor covered by this agreement and (b) the specific sampling point(s) on each compressor to be sampled during each sampling required under this agreement. All samples collected under this agreement shall be collected from the same sampling point(s) chosen by Texas Eastern in its Sampling Plan. Texas Eastern shall prepare this Sampling Plan within thirty (30) days of the effective date of this Agreement and supply a copy of this Sampling Plan to EPA within sixty (60) days of the effective date of this Agreement.

Samples shall be analyzed by Texas Eastern using the EPA methodology set forth in the EPA document entitled "Analysis of PCBs in Transformer Fluid and Waste Oil" which EPA supplied to Texas Eastern during the EPA/natural gas industry cooperative sampling program. On-going quality control including analysis of blank sample containers, duplicates, and spiked samples shall be conducted as outlined in the laboratory quality assurance guidance provided to Texas Eastern by EPA during the EPA/natural gas industry cooperative sampling program, and in the method of analysis specified above.

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* Each sample shall be collected using a separate sampling device, such as a glass tube, pipette, or metal dipper, to avoid cross-contamination of samples. Sample containers shall consist of clean glass bottles with teflon lined lids, metal containers or equivalent.

EPA shall supply Texas Eastern with reasonable technical assistance on sampling and analytical techniques when requested by Texas Eastern for the purpose of complying with this Agreement.

4. DECONTAMINATION: Within one hundred and twenty (120) days of the effective date of this Agreement, Texas Eastern shall decontaminate each compressor found to contain PCB concentrations of 50 ppm or greater, as determined by testing conducted in accordance with Part 2. Texas Eastern shall decontaminate each compressor found to contain 50 ppm or greater PCBs by thoroughly draining the PCB contaminated oil from the compressor and refilling the compressor with non-PCB lubricating oil.

After the initial decontamination, each compressor still found to contain 50 ppm or greater PCBs, as determined in accordance with Part 7, shall be decontaminated within one hundred and twenty (120) days of the date of Texas Eastern's receipt of the laboratory report indicating such PCB levels in the subject compressor. All PCBs removed during decontamination operations shall be handled, stored, and disposed of in accordance with the PCB Rule.

5. ASSESSMENT OF DECONTAMINATION: Texas Eastern shall sample and test oil from each compressor decontaminated in accordance with Part 4 above after the unit has been in operation for a minimum of sixty (60) days after decontamination.

6. DETERMINATION OF COMPLIANCE: If after a minimum of sixty (60) days of operation PCB levels remain below 50 ppm, each compressor shall be tested again after six (6) months of operation. If after six (6) months of operation since the last decontamination, PCB levels remain below 50 ppm, units shall be considered to be in compliance as stated in Part 1.

7. ADDITIONAL DECONTAMINATION: If results of testing after decontamination and sixty (60) days or six (6) months of operation show PCB levels of 50 ppm or greater, the compressor(s) shall be decontaminated again in accordance with Part 4. Parts 4 through 7 shall be repeated until each compressor is deemed to be in final compliance.

8. STATUS REPORTS: Texas Eastern shall prepare an initial report including the Sampling Plan developed under Part 3, initial compressor PCB levels as determined through testing conducted in accordance with Part 2, and a tentative compressor decontamination schedule. The initial report shall be submitted to EPA within sixty (60) days of the date of this Agreement.

Texas Eastern shall also provide EPA with periodic status reports on the progress of this decontamination program as set forth below. Each status report shall contain: (a) a list of testing results; (b) the date each compressor subject to this program was decontaminated; (c) the amount of PCB liquid resulting from decontamination procedures which was stored and/or disposed of; d) the location of the storage and/or disposal facility or facilitie e) the amount of non-PCB liquids added to each compressor, and f) other pertinent information which will allow the Agency to evaluate the progress of decontamination activities.

These status reports shall be sent to EPA every one hundred and twenty (120) days until final compliance is achieved. The final report should indicate that all compressors subject to this agreement contain PCB concentrations of less than 50 ppm after being in operation for a minimum of six (6) months subsequent to the last decontamination. Reports shall be sent to:

A. E. Conroy II, Director
Pesticides and Toxic Substances
Enforcement Division
U. S. EPA EN-342
401 M. Street S.W.
Washington, D. C. 20460

SUMMARY OF COMPLIANCE SCHEDULE

Texas Eastern agrees to comply with this Agreement within the time frames summarized below. Times in the following schedule are times from the effective date of this Agreement and all days referred to in this Agreement are calendar days.

1. COMPLETE SAMPLING PLAN:	Thirty (30) days
2. INITIAL TESTING:	Thirty (30) days or on the basis of tests conducted within the six (6) months prior to the effective date of this Agreement
3. DECONTAMINATE COMPRESSORS:	One hundred and twenty (120) days
4. ASSESS DECONTAMINATION:	After a minimum of sixty (60) days of operation, and after six (6) months of operation when sixty (60) day result is less than 50 ppm
5. ADDITIONAL DECONTAMINATION:	Implemented within one hundred and twenty (120) days of test result showing PCB concentrations of 50 ppm or greater

6. REPORTS:

o Initial Report	Sixty (60) days
o Status reports	Every one hundred and twenty (120) days after previous report.
o Final compliance report	Thirty (30) days after final compliance is achieved for all units.

7. FINAL COMPLIANCE TARGET DATE: Eighteen (18) months

OTHER PROVISIONS

1. ENFORCEMENT While this Agreement is in effect, EPA shall not initiate additional enforcement action against Texas Eastern for use of those gas pipeline compressors which are the subject of this Agreement and which may contain 50 ppm or greater PCBs.

In the event that Texas Eastern fails to meet the requirements of this Agreement, EPA may issue a Notice of Reinstatement of Penalty nullifying this Agreement and reinstating the penalty proposed in the Complaint.

This Agreement does not insulate Texas Eastern from compliance monitoring and enforcement actions for TSCA violations not addressed by this Agreement nor from enforcement actions under other laws administered by EPA.

2. NOTIFICATION OF TECHNICAL OR OPERATIONAL DIFFICULTIES: Texas Eastern shall notify EPA immediately in all cases where technical or operational difficulties will make it impossible for Texas Eastern to meet any of the deadlines in the Compliance Schedule

3. TECHNICAL ASSISTANCE: EPA shall provide reasonable technical assistance to Texas Eastern on questions concerning such matters as sampling and analytical procedures, and acceptable disposal options for the purpose of complying with this Agreement.

4. AMENDMENTS: Upon mutual consent of EPA and Texas Eastern, this Agreement may be amended at any time to modify or add technical and operational requirements (such as, but not limited to, deadline modifications necessitated by technical or operational difficulties) for the purpose of achieving compliance by Texas Eastern with the PCB rule. Any changes and/or amendments to this Agreement shall be incorporated into this Agreement when the amendment(s) have been signed by authorized representatives of EPA and Texas Eastern.

5. FINAL COMPLIANCE: If after complying with the schedule set forth on pp. 8 and 9 (or any subsequently agreed to schedules) of this Agreement, Texas Eastern finds that gas pipeline compressors still contain concentrations of 50 ppm or greater PCBs on the final compliance target date, EPA and Texas Eastern will evaluate options and select one for resolving this problem. That approach, including an agreed upon revised Compliance Schedule, will be incorporated into this Agreement which shall remain in effect until final compliance is achieved.

EXECUTION

The persons signing this Consent Agreement and Compliance Schedule affirm that they are authorized representatives of their respective Agency and corporation for the purpose of binding their respective organization to the terms hereof. It is so agreed.

U.S. ENVIRONMENTAL PROTECTION AGENCY

BY:

A.E. Conroy II

A. E. Conroy II, Director
Pesticides and Toxic Substances
Enforcement Division

8/3/82
Effective Date

TEXAS EASTERN
TRANSMISSION CORPORATION

BY:

George H Ewing

George H. Ewing,
Senior Vice President

Exhibit R

TEXAS
EASTERN
Gas Pipeline Company
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

F. L. COHAGAN
VICE PRESIDENT

August 20, 1981

Mr. John Seitz, Chief
Compliance Monitoring Branch
Pesticides and Toxic Substances
  Enforcement Division
Environmental Protection Agency
401 "M" Street S.W.
Washington, D.C. 20460

Dear Mr. Seitz:

In response to Mr. A. E. Conroy's letter of May 27, 1981, and as a follow-up to our letter of June 22, 1981, the following information is provided on that portion of Texas Eastern Gas Pipeline Company and Transwestern Pipeline Company systems in which PCB concentrations of 50 PPM or more have been found.

Step 1, as set forth in the May 27, 1981 letter, requests a plan for handling all PCB liquids removed from the systems, including the items listed at the top of page 2, as follows:

1. A description of the locations from which the liquids were being removed.

   Liquids are periodically being drained and collected from:

   a. Gas scrubbers or strainers located on the suction side of compressor stations and at other strategic locations on the pipeline systems.
   b. Liquid drains, drips or knock-out devices at gas measuring stations on the pipeline systems.
   c. Scraper receiving traps (liquids received in the trap with scrapers).
   d. Drainage from valve bodies, orifice fittings, meters, piping headers, and other drain points on the systems.

2. An estimate of the amounts of condensate being removed.

   The amounts of liquids being removed will vary from year to year and during the seasons of the year. Based on available records it is estimated that the following quantities of liquids are removed from the PCB contaminated portions of the systems.

Texas Eastern:	Approximately 125,000 to 150,00 Gallons per year
Transwestern:	Approximately 40,000 to 50,000 Gallons per year

3. A description of the measures being taken to protect workers handling any items coming in contact with PCB.

   Measures being taken to protect workers handling any items coming in contact with PCB's are as shown on Attachment No. 1. This information was contained in Attachment No. 4 of our June 12, 1981 reponse to Mr. A. E. Conroy's letter of May 15, 1981.

4. Procedures you will follow for handling, marking, storing and disposing of the PCB's in accordance with TSCA and the applicable Department of Transportation regulations.

   PCB contaminated materials are collected in tanks or drums and held for disposal at EPA approved incinerators or landfills, or by other methods of disposal approved by EPA. Methods of disposal for PCB contaminated liquids is based on PCB concentration determined by testing. Procedures being followed for handling, marking, storing, and disposing of PCB's are as shown on Attachment No. 2. This information was contained in Attachment No. 4 of our June 12, 1981 response to Mr. A. E. Conroy's letter of May 15, 1981.

In order that full consideration may be given to all facets of the problem in considering alternatives for preventing movement of PCB's into other systems (your Step 2), information requested on identification of PCB sources (top of page 3) is as follows:

1. A complete identification of all sources of the PCB's in your system.

   The only source of PCB's on the Texas Eastern and Transwestern systems definitively established to date is the PCB lubricant installed in certain gas turbine units between 1958 and 1970.

2. A plan for eliminating the source. This plan should include:

   - A suggested timetable
   - Measures to assure the safety of workers
   - Procedures you will follow for handling, storing, and disposing of the PCB's in accordance with the law.

   As more fully explained in our June 12, 1981 reponse to Mr. A. E. Conroy's letter of May 15, 1981, all gas turbine units which contained the PCB lubricant were drained and non-PCB lubricant installed between 1972 and 1977. PCB concentrations in all units were reduced to less than 50 PPM of PCB in 1978 (with the exception of one unit in

January, 1979), well in advance of the May 1, 1980 regulatory deadline for achieving this level. However, because of an apparent tendency for the PCB concentration to increase with time, additional oil changes have subsequently been required in most units (some as many as five (5) times) in an effort to maintain the PCB concentrations at less than 50 PPM. Contaminated PCB oils removed from the units have been disposed of at EPA approved landfill or incinerator facilities in compliance with EPA regulations. Until EPA approval of incinerator facilities in March, 1981, storage of PCB contaminated oil in accordance with EPA requirements was necessary. Such stored PCB contaminated oil has since been disposed of at EPA approved incinerators. Measures taken to assure safety of workers are given in Attachment No. 1. Procedures followed for handling, storing, and disposing of PCB's are contained in Attachment No. 2.

3. A monitoring plan to assure that the source of PCB's has been eliminated.

   Sampling to determine residual PCB concentrations in the units will be conducted at approximate six (6) months intervals until sampling adequately substantiates the feasibility of a less frequent time interval or elimination of PCB contamination.

Information requested in reporting on the technical alternatives for preventing further movement of PCB's into other transmission or distribution systems (Step 2 - middle of page 2 of Mr. Conroy's letter) is as follows:

1. A description of all possible alternatives for preventing movement of PCB's into other systems.

   Texas Eastern is actively researching all available methods and technology possibly applicable to eliminating or mitigating PCB contamination of pipeline systems. Laboratory and field testing is being performed on any methods that appear viable. It is hoped that some viable method of chemical treatment will evolve from this research. However, to date the only feasible means for preventing movement of PCB's into other systems appears to be control and/or elimination of the pipeline liquids which act as the medium in which the PCB's are transported. For this reason, it is felt that the feasible alternatives available at this time for the Texas Eastern system are as follows:

   A. Installation of a high efficiency filter/separator at each point where gas leaves the Texas Eastern system.

   B. Installation of a high efficiency filter/separator at all points where gas leaves the Texas Eastern system, and there is a history of condensate liquid removal.

C. Installation of high efficiency filter/separators at strategically selected central points on the Texas Eastern system located downstream of original source points of PCB's.

D. Installation of dehydration equipment to minimize further spread of PCB's throughout the system by reducing the quantity of liquids entering the system which are providing a medium for transporting and distributing PCB's.

E. Removal of PCB's by systematic pipeline scraper runs utilizing a flushing medium.

Since Transwestern normally only delivers gas to one customer downstream of the original contaminating source, installation of a high efficiency filter/separator on the main line at the delivery point will serve the combined purposes of all alternatives except E.

2. The best available estimates of the cost, effectiveness and time needed for each alternative.

Estimates of Cost

	Texas Eastern	Transwestern
Alternative A	$12,050,000	------
Alternative B	7,750,000	------
Alternative C	3,761,000	$ 567,000
Alternative D	8,500,000	------
Alternative E	Indeterminate	Indeterminate

Estimates of Effectiveness

It is felt that all methods would be effective in time. Alternative A would be most effective in preventing movement to other systems, but will take the longest period of time to implement and the longest period of time of the filter/separator alternatives to achieve ultimate elimination of the problem in the Texas Eastern system. Alternative C, on the other hand, can be implemented most expeditiously and is the most effective method of achieving the ultimate overall objective of eliminating contamination in the Texas Eastern system in the shortest period of time, thereby reducing the continued period of exposure and costs in handling, transporting, and disposing of contaminated liquids. Alternative B is a compromise which is neither the most effective nor the most expeditious. By providing dryer gas and reducing the quantity of liquids entering the system which provide a medium for transporting and distributing PCB's, Alternative D will serve to "dry-up" and minimize liquid flow in the system, thereby preventing movement of PCB's to other systems. Ultimate elimination of residual contamination on the Texas Eastern system would have to be accomplished by pigging and drainage and would probably take the longest period of time to accomplish utilizing this method by itself. However, by reducing the quantity of contaminated liquids, the expense, exposure, and other problems associated with disposal of contaminated liquids would be greatly reduced. Alternative E by itself is neither an effective nor expeditious method and is not always possible in all pipeline segments. Alternative E would be most effective in conjunction with, or as a supplement to, one of the other methods.

Estimated Time Needed

	Install and/or Implement	To Become Effective
Alternative A	20 Months Minimum	Upon in-service date at each location
Alternative B	16 Months Minimum	Upon in-service date at locations where installed
Alternative C	12 Months Minimum	Upon in-service date
Alternative D	15 Months Minimum	Upon in-service date
Alternative E	Already Implemented on experimenal basis	Indeterminate

3. Your assessment of the feasibility of each method.

Alternative A, B, and C are all considered feasible in themselves. Alternative D is basically more feasible as a preventative method than a clean-up method. Alternative E is not considered feasible by itself but pigging is considered a necessary component or supplement to each of the other methods. However, utilization of a flushing medium may or may not be beneficial, or even possible. When used in conjunction with filter/separators and/or dehydration, pigging alone without a flushing medium would probably prove more beneficial than with a flushing medium.

As previously mentioned, Alternative A would be most effective in preventing movement to other systems, but would take the longest period of time in which to implement due to delay in material procurement and the large number of installations to be made. Therefore, not only would movement of contaminated liquids continue for a longer period of time, but at a time when concentrations are at their highest (diminishing in time with liquid removal and drainage of residual concentrations). Except for Alternative B, Alternative A would take the longest period of time to cleanup the Texas Eastern system, thus delaying achievement of the ultimate overall objective of eliminating the contamination source and thereby eliminating the exposure and costs in handling, transporting, and disposing of contaminated liquids as early as possible. Not only would the initial cost of separate filter/separators be more, but future operating and maintenance costs would be commensurately higher due to the larger number of installations, the additional number of appurtenant storage facilities required, larger number of personnel involved, disposal problems associated with larger number and broad geographic dispersal of filter elements, and other related aspects involved. Alternative A would involve approximately 189 separate filter/separators with 21 or more locations requiring additional storage facilities.

Alternative B represents basically a selective application of Alternative A with filter/separator installations only at points where there is a history of condensate liquids removal where gas leaves the system. While this method would represent a definite savings in installation costs and would achieve a better cost per benefit ratio, the operating and maintenance costs would not be reduced commensurately, because the approximate 110 locations involved would still be widely dispersed geographically and 21 or more locations would still require additional storage facilities. Additionally, because the behavior of pipeline liquids is sometimes erratic, there is no assurance that contaminated liquids would not occur at a location without a filter/separator. Based on the same rationale as applied to Alternative A, Alternative B would be even slower and less effective than Alternative A in reducing and eliminating contamination in the Texas Eastern system and thereby ultimately solving the overall problem. While a feasible alternative, Alternative B is felt to be only a partial solution.

Alternative C can be implemented in the shortest period of time. Thus it is the most expeditious method to mitigate the movement of contaminated liquids to other systems. Also it is the most effective method to achieve the ultimate overall objective of eliminating contamination in the Texas Eastern system in the shortest period of time. This would thereby reduce the continued period of exposure and costs in handling, transporting, and disposing of contaminated liquids. By strategically locating filter/separators on the main line downstream of original PCB sources (gas turbines that formerly used PCB lubricant), Alternative C has a distinct advantage in that liquids will be removed from the full thru-put of the main line at the points on the system where PCB concentrations are most likely to be the highest (downstream of the subject turbines). This will not only provide most effective removal of the maximum quantity of liquids, thereby eliminating the medium for transporting and spreading PCB contamination, but it will also remove the liquids most likely to have the highest PCB concentrations. Since gas input points downstream of the filter/separator locations are minimal and are the only input points where additional liquids may enter the system, movement of PCB's to other systems is minimized due to the lack of liquids. Since there would be fewer locations involved, with fewer liquid storage facilities, the operating and maintenance costs would be less than that for Alternatives A or B. Utilization of Alternative C would also reduce the quantity of liquids being transported, both in the pipeline and for disposal. Another advantage of Alternative C would be the added effectiveness of scraper runs in conjunction with filter/separator installations because of more effective liquid removal due to full flow filter/separation.

Except for Alternative C, Alternative D could be implemented in the shortest period of time. Presently, as uncontaminated liquids entering the system are transported, they may become contaminated and act as a medium for transporting and distributing PCB's throughout the system. Not only does this provide a continuing means of spreading PCB contamination in the Texas Eastern system and movement of PCB's to other systems, but it provides a continuing source of potential exposure and expense of disposal because of the continuous supply and volume of contaminated liquids requiring removal and disposal. Installation of dehydration equipment at the largest liquid input point on the system will provide dryer gas and reduce the quantity of liquids which provide a medium for transporting and distributing PCB's in the system. Alternative D by itself is basically more of a preventative program than a clean-up program and would require a pigging and drainage program in conjunction with it (as would Alternatives A, B, and C) to accomplish elimination of PCB contamination in the system. However, the dry condition of the gas and the reduction in the quantity of liquids being transported would enhance and expedite elimination of system PCB contamination utilizing pigging and drainage. Additionally, potential exposure and expense of disposal would be greatly reduced. An added benefit to this approach would be a reduction in the quantity of liquids (although uncontaminated) obtained due to retrograde condensation where pressure reduction occurs, particularly at customers meters. The largest contributor of liquids in the Texas Eastern system is the offshore Cameron area system. By installation of proper facilities, liquids from the Cameron system can be removed before they reach Gillis Station, where split flow occurs and the liquids are dispersed to main line systems. Reduction in dew points from a nominal seven (7) pounds per MMCF to three (3) pounds per MMCF by installation of dehydration equipment at Grand Chenier Station will remove an estimated 321 gallons per day (or 117,165 gallons per year) of uncontaminated liquids entering the system.

Texas Eastern has been experimenting with Alternative E using methanol alcohol, diesel fuel, and clean condensate as flushing mediums. While this method has met with some degree of success, the results do not justify utilization of this method by itself as a means of preventing movement of PCB's to other systems or as a means of cleaning up the system. For one thing, such a program must, of necessity, originate on the upstream end of the system and progress downstream, otherwise incoming liquids will recontaminate the cleaned segments. This would be a prolonged process to achieve decontamination of the entire system. Secondly, it is not possible to perform such runs in some locations without installing additional scraper trap facilities and/or utilizing temporary receiver tanks, a potentially hazardous operation. Additionally, a limitation exists on the quantity of flushing medium that can be utilized in on-stream scraper runs. Also, the more flushing medium utilized the more liquid there is to be disposed of, at considerable expense since the flash point usually dictates disposal by incineration. However, scraper running, with or without a flushing medium as conditions dictate, can be used to great benefit in conjunction with filter/separator or dehydration equipment.

4. A discussion of the potential for human and environmental exposure to PCB's of each method.

The method utilizing the fewest personnel at the least number of liquid collection, transportation, and disposal locations will provide the least potential for human and environmental exposure to PCB's. Alternative A would require one or more people at every location at which gas leaves the system. It would also require activities related to the handling, transportation, and disposal of PCB at every such location. Similarly the number of people and activities involved unter Alternative B and C would be directly related to the number of filter/separator locations involved. Alternative D would require personnel to operate and maintain the equipment but no potential for human and environmental exposure to PCB's would exist due to location in the uncontaminated portion of the pipeline system. Alternative E would utilize the largest number of personnel, involve the widest range of activities, involve the greatest number of geographic locations, and presents the greatest potential for human and environmental exposure if a flushing medium is used. Of the above alternatives, it can be seen that Alternative D offers the least potential for human and environmental exposure, with Alternative C offering the next least potential.

PROPOSAL

In view of the above, Texas Eastern and Transwestern hereby propose for EPA consideration, implementation of a plan based on a combination of Alternatives C, D, and E for prevention of movement of PCB's to the systems of other companies and elimination of PCB's from the Texas Eastern and Transwestern systems.

The plan consists of the installation of high efficiency filter/separators at a minimum of four (4) locations and installation of dehydration equipment at one (1) location on the Texas Eastern system, and the installation of a high efficiency filter/separator at one (1) location on the Transwestern system, as shown on the attached system maps identified as Attachment No. 3 and No. 4 respectively. Filter/separator locations proposed on the Texas Eastern system are Joaquin, Texas; Berne, Ohio; Lebanon (Station 16), Ohio; and Lambertville, New Jersey compressor stations. Dehydration equipment is proposed at Grand Chenier Station. A filter/separator is proposed at the Needles, Arizona measurement station on the Transwestern system.

The equipment proposed to be installed at these locations are filter/separators manufactured by Peerless Manufacturing and Perry Equipment Company (Peco). The filter/separators are two stage with the inlet gas passing through filters to agglomerate the small droplets and then the vane separator to remove the agglomerated liquids. The Peerless filter/separator is guaranteed to remove 100 percent of all droplets 8-10 microns and larger and 99.5 percent of those droplets sizes 1/2 to 8 microns. The Peco unit is guaranteed to remove 98 percent of all liquids and solids one micron and larger with 99.9 percent overall removal efficiency.

It is proposed that a modified Alternative E pipeline liquid cleanup program utilizing on-stream pigging, with or without a flushing medium as conditions warrant or permit, and periodic draining of valve bodies, orifice meters, etc. will be conducted in conjunction with operation of the centralized filter/separators and the dehydration facility.

It is estimated that installation of the filter/separators can be accomplished within approximately one year and the dehydration equipment within approximately 15 months from the date of approval of this plan by EPA. Estimated costs of the facilities is as follows:

Texas Eastern filter/separators	$ 3,761,000
Texas Eastern dehydration equipment	8,500,000
Sub Total	12,261,000
Transwestern filter/separator	567,000
Total	$12,828,000

Procedures that will be followed to assure worker safety and for handling, marking, storing, and disposing of PCB's are as contained in Attachment No. 1 and No. 2 respectively.

Effectiveness of the program will be monitored by periodic sampling of pipeline liquids for PCB's. The results of the sampling can be reported to EPA.

We trust this will provide you with the information requested in Mr. A. E. Conroy's letter of May 27, 1981. We will be glad to meet with you to further discuss any aspects of the program as you may desire. We stand ready to initiate this program upon your approval.

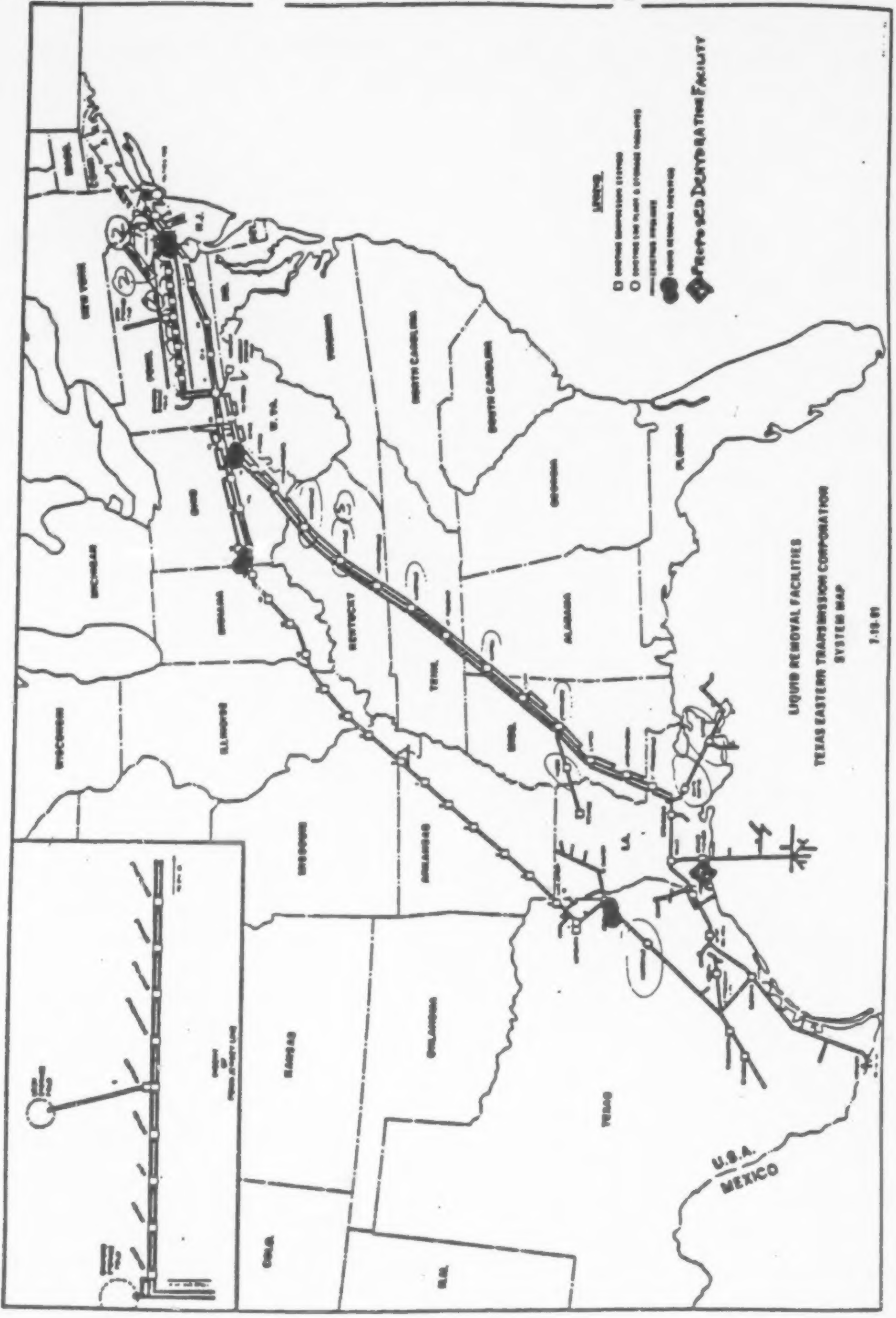
Sincerely,

F.L. Cohagan

F. L. Cohagan

Attachments

ATTACHMENT 3


LEGEND
PROPOSED DEHYDRATING FACILITY
NEW YORK
PENN.
N.J.
W. VA.
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA
FLORIDA
KENTUCKY
TENN.
ALABAMA
LA.
TEXAS
U.S.A.
MEXICO
2
3
LIQUID REMOVAL FACILITIES
TEXAS EASTERN TRANSMISSION CORPORATION
SYSTEM MAP
7-19-91

ATTACHMENT 4

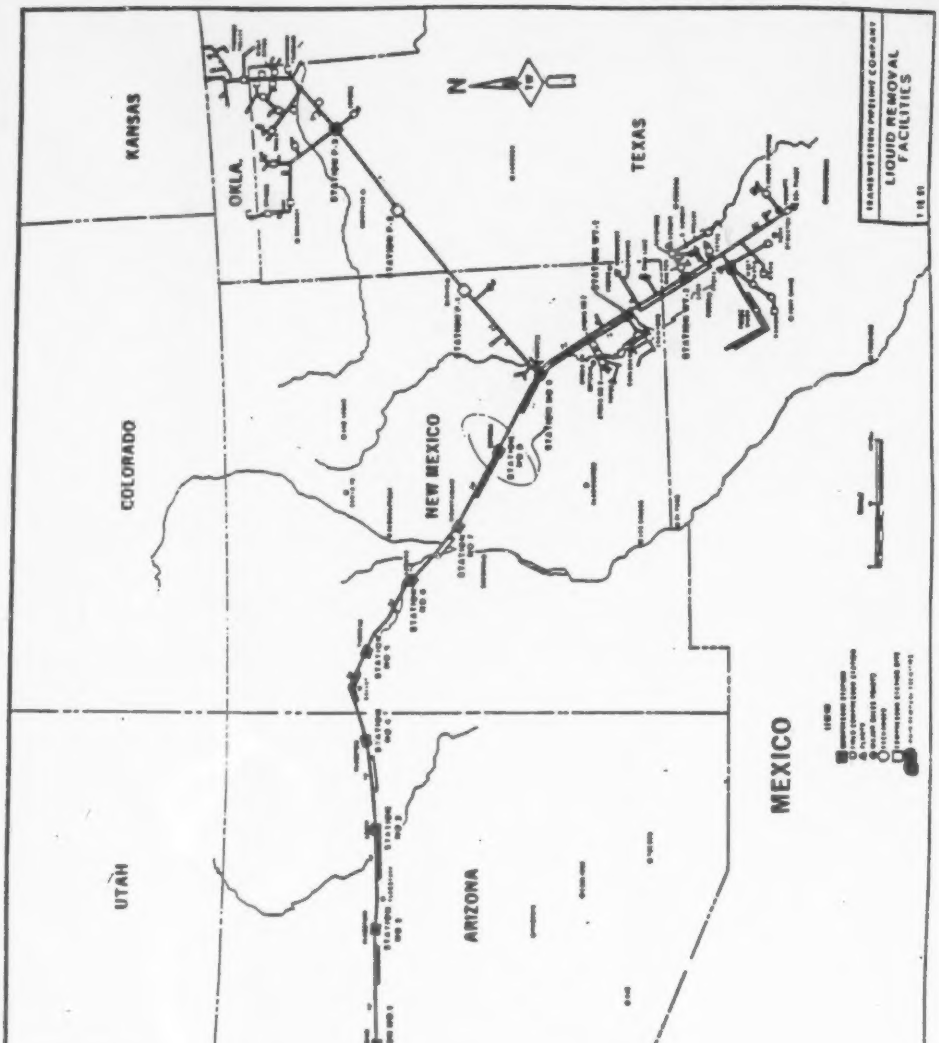

TRANSWESTERN PIPELINE COMPANY
LIQUID REMOVAL FACILITIES
KANSAS
OKLA.
TEXAS
COLORADO
NEW MEXICO
UTAH
ARIZONA
NEVADA
MEXICO
N

Exhibit S

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 9 1981

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

F. L. Cohagan
Vice President
Texas Eastern Gas Pipeline Company
P. O. Box 2521
Houston, TX 77001

Dear Mr. Cohagan:

As you know, we have received your letter of August 20, 1981, in which you propose a plan for reducing any risk from PCBs present in your pipelines. My staff also met with you on September 21, 1981, and with you and representatives of the Federal Energy Regulatory Commission (FERC) on October 6, 1981, to discuss your proposal in detail. You also supplied additional information on the proposed dehydration plant installation in your letter of October 14, 1981.

Your proposal for preventing further movement of PCBs to the systems of other companies and elimination of PCBs from the Texas Eastern (TE) and Transwestern (TW) systems is described on pages 8 and 9 of your August 20, 1981, letter. This proposal consists of the following actions:

1. Installation of five full flow high efficiency filter/separators at strategic points downstream of source points of PCBs. These separators will be installed in order to prevent the movement of PCB liquids to other systems.

   A filter/separator unit will be installed at:
   - o Joaquin, Texas, compressor station (TE)
   - o Berne, Ohio, compressor station (TE)
   - o Lebanon, Ohio, compressor station 16 (TE)
   - o Lambertville, New Jersey, compressor station (TE)
   - o Needles, Arizona, measurement station (TW)

2. Installation of dehydration equipment at Grand Chenier Station, Louisiana, in order minimize further spread of PCBs throughout the Texas Eastern System by reducing the quantity of liquids (water) entering the system.

3. Removal of existing liquids through systematic pigging; and draining of valve bodies, metering orifices, etc.

(See note on Page 3)

We feel that the installation of filter/separators in conjunction with the systematic pigging and draining of the pipeline system is an excellent approach for removing liquids contaminated with PCBs and for preventing possible movement of PCBs to other systems. The Agency, therefore, accepts steps one and three of your proposal.

It is our understanding that the installation of the filter/separators (step 1) will be undertaken as soon as the required equipment can be obtained. The one area of concern with this portion of your proposal, as discussed at the September 21, 1981, meeting, was that no filter/separator will be installed on the southern portion of lines 10, 15, and 25 of the Texas Eastern system. As you explained at the meeting, the movement of liquids into other systems supplied by these lines is controlled by the presence of existing positive displacement meters at the sales points. These meters collect liquids before they can enter the customer's system. As we suggested at this meeting, if all the proposed filter/separators cannot be installed at the same time, due to delays in equipment supply from the manufacturer, those at Lambertville, New Jersey, and Needles, Arizona, should be installed first. Please provide us with an equipment installation schedule as soon as possible, and notify us when the various equipment is operational. It is also our understanding that pigging and draining operations (step 3) are now on-going.

You suggested step two of your proposal, the installation of a dehydration facility, as a preventive measure to reduce the total volume of pipeline condensate collected. While the potential benefits of steps one and three of your proposal are obvious, the potential benefits of step two are more difficult to assess. This portion of your proposal was discussed at length at your October 6, 1981, meeting with both EPA and FERC. Additional technical details were also supplied in your October 14, 1981, letter. There are, however, still questions as to the technical merit and the value of this facility regarding the amount of condensate reduction. Because of these questions, EPA and FERC are unable to determine if the construction of this dehydration plant would facilitate your PCB cleanup efforts. Therefore, your company's decision whether or not to construct this facility at this time depends on your technical assessment that it would be effective in helping to resolve your PCB contamination problem. We are, of course, available to meet with you again to resolve the remaining technical questions concerning this facility, should you feel this would be useful in making your final decision on construction of the dehydration plant.

The need for any additional remedial actions will be determined through monitoring closely the effectiveness of your present remedial efforts. My staff is now developing a suggested monitoring plan to obtain information for evaluating the effectiveness of the remedial measures now being implemented by gas transmission companies. The suggested monitoring activities will include continued condensate sampling; information on the source, amount, and PCB levels of condensate collected; and gas stream testing. We will forward this suggested monitoring plan to you by November 20th along with a request for periodic reporting on your monitoring. We will also be communicating with you further concerning the problem of PCB levels in some of your turbine compressors.

In closing, I should note that EPA approval does not constitute approval by FERC, or other state and local government agencies. As discussed at your meetings with us, any applicable facility certificates or permits should be obtained from FERC, or appropriate state and local agencies.

Thank you for your cooperation in this matter. We are confident that through your continuing clean-up efforts this problem will be resolved in an expedient manner. If you have any questions concerning this matter, please contact John Seitz at 202-472-3701.

Sincerely yours,

AE Conroy II

A. E. Conroy II, Director
Pesticides and Toxic Substances
Enforcement Division

- Exhibit T

TEXAS EASTERN
Gas Pipeline Company
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

HOWARD C. HOMEYER
PRESIDENT

February 23, 1987

The Honorable Quentin Burdick
Chairman
Senate Committee on Environment
and Public Works
United States Senate
SH-511
Washington, D.C. 20510

Dear Chairman Burdick:

As a result of wide spread publicity this weekend regarding polychlorinated biphenyls (PCBs) at Texas Eastern Gas Pipeline Company (TEGPL) compressor stations, this letter is intended to assure you that TEGPL has been and continues to be committed to the complete and orderly conduct of investigation and remediation work at its compressor station sites, and to offer to meet with you to provide the information that has been discussed with the U. S. Environmental Protection Agency (EPA).

As part of its continuing work with the EPA on PCBs, in August of 1985, TEGPL met with EPA to discuss the possible presence of PCBs in tanks and backfilled earthern impoundments located at TEGPL compressor stations. TEGPL advised EPA that it was commencing an extensive program to sample and analyze these sites. In 1985 TEGPL retained Roy F. Weston, Inc. (Weston) to investigate the presence of PCBs at the sites and to prepare a remediation program. In April 1986 TEGPL presented to EPA Weston's preliminary report "Compressor Stations Disposal Pit Investigations, April 21, 1986". In November 1986 TEGPL reiterated to EPA its intent to conduct remediation and met in December of 1986 with EPA to present Weston's "Preliminary Report of Sampling Program at Texas Eastern Compressor Stations" and a proposed generic cleanup plan. The final report on a pilot program of sampling at eight sites representing a geological and operational cross section of the compressor station sites and final report on a 54 site screening program will be presented to EPA in March. At our December meeting EPA reported that it was organizing a case management team and advised TEGPL that it would seek to coordinate remediation oversight efforts among the EPA regions and the affected states.

P.O. BOX 2521 HOUSTON, TEXAS 77252-2521 (713) 759-4555 TELEX 775459

TEGPL owns a natural gas pipeline system which extends through sixteen states from Texas to the Northeast. TEGPL first began using a fire-retardant lubricant containing PCB in its pipeline compressors following a fire at one of its compressor stations in 1958. When TEGPL discovered the PCBs tend to persist in the environment, TEGPL began phasing out its use of PCB lubricating oil and completely eliminated its use of the oil by 1977. TEGPL and other companies as part of a 1981 EPA program conducted extensive tests for PCBs in gas; none were ever found.

Although TEGPL had completely drained each of its compressors of PCB lubricating oil by 1977, the replacement oil became contaminated with residual PCBs which remained in the interior crevices of the compressors. In 1982, TEGPL entered into a Consent Agreement with EPA which established a systematic program of constant monitoring, draining, and flushing of the compressors in order to eliminate any residual PCBs. At all times, turbine oil drained from the compressors was carefully collected in drums, manifested and trucked to authorized disposal facilities and incinerated. It was not disposed of on TEGPL property.

In 1981, TEGPL discovered that PCBs were present in natural gas condensate (a hydrocarbon liquid) inside its pipeline system. It is believed that the source of the PCBs inside the pipeline was small amounts of PCB lubricating oil which had leaked past the compressor seals during the period that TEGPL used PCB lubricating oil. In 1982, EPA approved a pipeline condensate monitoring program submitted by TEGPL and TEGPL began a systematic program to remove PCB-contaminated condensate from the pipeline. It also accelerated a program begun in 1975 of installing diffuser of "blowdown" tanks to replace surface impoundments that historically had been used to collect condensate discharged from the pipeline. The source of the PCBs in the surface impoundments at TEGPL's compressor stations is believed to be the PCB-contaminated condensate which had been collected from the pipeline system.

As you know PCBs are regulated under the authority of the federal Toxic Substances Control Act. Because PCBs are found in multiple states, and because TEGPL has been dealing with EPA on PCB issues since 1981, TEGPL has continued to work with EPA in addressing the cleanup of PCBs in TEGPL's surface impoundments. Weston is studying each compressor station site suspected of PCB presence. Among the documents prepared by Weston and submitted to EPA Headquarters have been a Preliminary Report of Sampling Program at TEGPL Compressor Stations, Proposed Generic Cleanup Plan for PCBs at Compressor Station Sites, Site Stabilization and Further Source Control Program, and Scheduled for Further Source Control and Cleanup.

TEGPL would be pleased to provide you with copies of these documents. For further information, please contact Mike Costello at (202) 842-2226.

Yours very truly,

HC Homeyer

Howard C. Homeyer

Exhibit U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 15 1981

OFFICE OF ENFORCEMENT

Mr. F. L. Cohagen
Vice President - Operations
Texas Eastern Transmission Corp.
P. O. 2521
Houston, TX 77001

Dear Mr. Cohagen:

As you are aware, in January of this year EPA received information concerning the detection of PCBs in natural gas pipelines. In response to this situation, the Agency developed a cooperative sampling and analytical effort involving your company as well as other interstate pipeline companies and local gas utilities. Information supplied by your company and EPA generated data indicate the presence of PCBs in condensate and compressor oil within your system at levels above 50 ppm. In order to fully evaluate this problem, including your compliance with the requirements of the PCB rule, I am requesting additional information concerning the Texas Eastern and Transwestern natural gas line system. Please supply the following information within two weeks from the date of this letter.

I. General Information:

1) Total number of compressors on Texas Eastern and Transwestern systems.

2) Total number of compressors which have contained PCB lubricating oil at any time.

3) Steps taken by Texas Eastern to comply with the PCB ban rule (i.e., description of testing, draining procedures etc.).

II. For each Compressor which has contained PCBs at any time:

1) Location.

2) Type of compressor (turbine vs. reciprocating).

3) Volume of lubricating oil in compressor.

4) Date(s) and result(s) of any testing to determine PCB concentration in the lubricating oil prior to May 1, 1980.

5) Steps taken to bring PCB concentration below 50 ppm prior to May 1, 1980, (include method of marking, storage, and disposal of any PCB or PCB contaminated oils).

6) Date(s) and result(s) of any testing conducted after May 1, 1980, to determine PCB concentration in the compressor lubricating oil.

7) Steps taken after May 1, 1980, to reduce PCB concentrations below 50 ppm when necessary (including method of marking, storage, and disposal of any PCB or PCB contaminated oil).

8) Maintenance records for the past 3 years including: dates of seal blow outs and other major problems, length of resulting down time, amount and type (PCB vs. non-PCB) lubricating oil added to the compressor in this time period.

9) Funds expended prior to May 1, 1980, to reduce PCB concentrations in compressors.

10) Funds expended after May 1, 1980, to reduce PCB concentrations in compressors.

I would appreciate receiving this material by May 29, 1981. If you have any questions concerning this letter, please contact John Seitz (202-472-3701) of my staff.

Sincerely yours,

A E Conroy II

A. E. Conroy II, Director
Pesticides and Toxic Substances
Enforcement Division

Enclosure

Exhibit V

TEXAS
EASTERN
Gas Pipeline Company
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

June, 12, 1981

Mr. A. E. Conroy II, Director
Pesticides and Toxic Substances Enforcement Division
United States Environmental Protection Agency
Washington, D. C. 20460

Dear Mr. Conroy:

Re your letter, dated May 15, 1981, attached is the PCB related information requested on the Texas Eastern and Transwestern natural gas pipeline system.

Should you require additional information on this subject, please contact this office.

Sincerely,

F. L. Cohagan

F. L. Cohagan

ABJ:ss

Attachment

P.O. BOX 2521 HOUSTON, TEXAS 77001 (713) 651-0161

RESPONSE TO EPA REQUEST

FOR

PCB RELATED DATA

ON

TEXAS EASTERN AND TRANSWESTERN PIPELINE SYSTEMS

June 3, 1981

(Revised June 12, 1981)

I. General Information:

1. Total number of compressors on Texas Eastern and Transwestern systems.

   Five Hundred Sixty Three (563)

2. Total number of compressors which have contained PCB lubricating oil at any time.

   Twenty Five (25)

3. Steps taken by Texas Eastern to comply with the PCB ban rule (i.e., description of testing, draining procedures, etc.).

   On January 7, 1972, Monsanto notified Texas Eastern that OS-81 and MCS-153/Turbinol 153 contained "major amounts" of polychlorinated biphenyl products (PCBs). Also, "that PCBs tend to persist in the environment; that care is required in their handling, possession, use and disposition; that tolerance limits have been or are being established for PCBs in various food products". Monsanto, at this time, notified Texas Eastern that Monsanto would not sell Turbinol 153 after June 30, 1972.

   On January 13, 1972, Texas Eastern had 64, 877 gallons of Monsanto OS-81 and Turbinol 153 or a mixture of the two in 25 turbine/compressor units.

   On April 12, 1972, Texas Eastern made the decision to start "phasing out" the Turbinol 153 with Stauffer Fyrquel. This product is a synthetic phosphate ester containing no PCBs. The intent of the Turbinol 153 "phase-out" program was to remove the Turbinol 153 from selected units and refill with Stauffer Fyrquel. The Turbinol 153 removed would then be used for make-up in the units that continued to use Turbinol 153. Our synthetic turbine oil consumption at that time was over 19,000 gallons per year and we expected to complete the "phase-out" of Turbinol 153 in about four years.

   The Turbinol 153 "phase-out" program was initiated on May 11, 1972 and progressed as follows:

STATION	UNIT NO.	PHASE OUT DATE
Huntsville, TX	No. 1	05/11/72
Yazoo City, MS	No. 1	06/30/72
Barton, AL	No. 1	08/07/72
Corona, NM	No. 1	12/15/72
Gladeville, TN	No. 1	10/18/73
Danville, KY	No. 1	06/15/73
Danville, KY	No. 2	06/15/73
Danville, KY	No. 3	06/15/73
Owingsville, KY	No. 5	10/15/73
Armagh, PA	No. 1	09/30/75
Lilly, PA	No. 5	09/30/75
Entriken, PA	No. 1	10/01/75

On January 27, 1976, the total volume of Turbinol 153 had been reduced to approximately 29,000 gallons and thirteen turbines continued using Turbinol 153. The "phase-out" program was obviously behind schedule. This was due to the decrease in the use factor of our turbines from 63.5 percent in 1971 to 21.5 percent in 1975.

By the early part of 1976, EPA was considering adding PCBs to its list of hazardous substances regulated by the FWCPA. And, in Congress, an amendment had been introduced to the Toxic Substances Control Bill which would ban all non-enclosed uses of PCBs and ban enclosed uses one year after implementation.

In early 1976, Texas Eastern initiated an accelerated "phase-out" program for Turbinol 153 that involved incinerating or landfilling the lubricant as it was removed from turbines rather than using it for make-up. This program was scheduled for completion in 1979. Rollins Environmental Services was selected to do the incineration at their facilities in Bridgeport, NJ, Baton Rouge, LA and Deer Park, TX. Chemical Waste Management was selected to handle the PCB landfill at their Emelle, AL facility. This program was further accelerated and was completed in 1977 as follows:

STATION	UNIT NO.	CHANGE OUT DATE
LaRose, LA	No. 1	02/13/76
Delmont, PA	No. 1	07/07/76
Perulack, PA	No. 4	07/09/76
Hanover, NJ	No. 1	10/18/76
Hanover, NJ	No. 2	10/18/76
Kosciusko, MS	No. 1	11/10/76
White Castle, LA	No. 1	10/20/77
Shermansdale, PA	No. 1	05/11/77
Shermansdale, PA	No. 2	05/09/77
Bernville, PA	No. 1	06/02/77
Bernville, PA	No. 2	06/02/77
Grantville, PA	No. 4	05/16/77
Bechtelsville, PA	No. 5	06/16/77

On June 28, 1976, a program was initiated to determine the amount of PCB residue remaining in the turbine lube oil operating tanks. Gollob Analytical Service, 47 Industrial Road, Berkeley Heights, New Jersey was selected for this work. The results of the first gas chromatography analysis performed for Texas Eastern are shown on Attachment No. 1 (1st Analysis). The PCB concentrations ranged from 0.14 percent (1400 ppm) to 7.1 percent (71,000 ppm) by weight.

In 1977, samples were again taken from the lube oil operating tanks to determine if the PCB contamination was decreasing as new lubricant was added from the make-up tanks. The contamination was lowered in some of the units, but not appreciably as shown on Attachment No. 1 (2nd Analysis).

In October 1977, plans were formulated to decontaminate all twenty-five contaminated turbines with the express goal of reducing the PCB contamination levels below 50 ppm. An example of the decontamination procedure used is shown on Attachment No. 2. This plan could not be put into effect until late Spring of 1978 because of the load demand on the turbines.

Before this decontamination program was started, a sample was taken from the lube oil operating tank and the make-up tank of each of the twenty-five affected turbines. These samples were analyzed for PCB residue and the results are shown on Attachment No. 1 (3rd Analysis). The contamination ranged from less than 10 ppm to as much as 60,000 ppm.

Effective April 18, 1978, EPA prohibited the disposal of liquids with 500 ppm or more of PCB contamination by any means other than incineration in an EPA approved incinerator. No incinerators were approved by EPA until March 1981. This created a disposal problem that Texas Eastern solved by constructing storage buildings to store a total of 1,500 drums (55 gal/ea). These buildings meet EPA specifications for the storage of PCB liquids.

The April 18, 1978 regulation did not prohibit the disposal of liquids with less than 500 ppm PCB contamination or solid PCBs of any concentration. Texas Eastern continued to dispose of these materials as shown on Attachments No. 6 and No. 7.

As soon as the above decontamination program was completed, samples were again taken from the lube oil operating tank and make-up tank of each of the twenty-five affected turbines and analyzed for PCBs. The PCB concentrations ranged from less than 10 ppm to a high of 40 ppm as shown on Attachment No. 1 (4th Analysis).

On March 16, 1979, after the turbines had operated for about three months, samples were again taken from fourteen turbines to determine what effect three months operation had on PCB levels. Seven of the fourteen units tested indicated the PCB contamination above 50 ppm as shown on Attachment No. 1 (5th Analysis). Beginning April 25, 1979, the decontamination procedure was repeated on each of these seven turbines.

Effective July 2, 1979, EPA applied PCB regulations to all liquids with 50 ppm PCB contamination. Liquids with 500 ppm contamination could still be disposed of by incineration and liquids with 50-500 ppm contamination could still be land filled.

Starting January 25, 1980, samples were again taken from twenty-four of the affected turbines. The results of the analyses again indicated that the lubricant in most of the operating tanks contained PCB concentrations above 50 ppm as shown on Attachment No. 1 (6th Analysis).

By March 20, 1980, the decontamination procedures were completed on all units with PCB contamination levels above 50 ppm. Samples were taken from the lube oil operating tank and make-up tank on all twenty-four affected turbines during 1980. As shown on Attachment No. 1 (7th Analysis), none of the PCB contamination levels were above 50 ppm.

In January and February 1981, samples were again taken from the lube oil operating and make-up tanks of all twenty-five of the affected turbines. The results of the analyses indicated that the lubricant in sixteen of the operating tanks contained PCB concentrations above 50 ppm as shown on Attachment No. 1 (8th Analysis). Decontamination procedures were started immediately and completed on March 23, 1981. After twenty-four hours operation, samples were taken from the lube oil operating tanks of the sixteen turbines with PCB concentrations above 50 ppm. The results are shown on Attachment No. 1 (9th Analysis). The only explanation for the unusually high contamination in the Kosciusko turbine is that this unit had not operated for several years and it is very difficult to get a thorough flush on an idle unit. The lubricant in this unit was circulated for several weeks and drained again on May 20, 1981. This unit is scheduled to be refilled on June 4, 1981.

On August 1, 1981, samples will again be taken from the lube oil operating tanks of all twenty-five of the affected turbines and analyzed for PCB contamination.

II. For each compressor which has contained PCBs at any time:

1. Location

   ATTACHMENT NO. 1

2. Type of compressor (turbine vs. reciprocating).

   All twenty-five units are gas turbines driving centrifugal compressors.

3. Volume of lubricating oil in compressor.

   The lube oil systems (operating reservoir, piping, filters, coolers, etc.) of twenty-two of the units have a capacity of 1,800 gallons each; one unit (Delmont, PA) has a capacity of 750 gallons and two units (Hanover, NJ No. 1 and 2) have a capacity of 350 gallons.

4. Date(s) and result(s) of any testing to determine PCB concentrations in the lubricating oil prior to May 1, 1980.

   ATTACHMENT NO. 1

5. Steps taken to bring PCB concentrations below 50 ppm prior to May 1, 1980 (include method of marking, storage and disposal of any PCB or PCB contaminated oils).

   See ITEM NO. 3 of General Information. Also, see ATTACHMENT NO. 2 and No. 3 for marking,storage and handling of PCB lubricants.

6. Date(s) and result(s) of any testing conducted after May 1, 1980, to determine PCB concentration in the compressor lubricating oil.

   ATTACHMENT NO. 1

7. Steps taken after May 1, 1980 to reduce the PCB concentrations below 50 ppm when necessary (including method of marking, storage and disposal of any PCB or PCB contaminated oil).

   See ITEM NO. 3 of General Information. Also, see ATTACHMENT NO. 2, NO. 3 and NO. 4 for marking, storage and handling of PCB lubricants.

8. Maintenance records for the past three years including: dates of seal blow outs and other major problems, length of resulting down time, amount and type (PCB vs. non-PCB) lubricating oil added to the compressor in this time period.

   As shown on ATTACHMENT NO. 5, Texas Eastern and Transwestern have experienced twenty-one (21) compressor seal failures from January 1978 thru March 1981 in the twenty-five PCB contaminated compressors.

   This is the only type equipment failure that could result in loss or leakage of lube oil/seal oil other than rupture lube oil lines or tanks. No lube oil lines or tanks have failed during the 1978 to present time period.

   The down time caused by a compressor seal failure is approximately thirty-six hours. Twenty hours is required for cool-down and sixteen hours is required to replace the seal. The seal oil pumps do not operate during this thirty-six hours so oil is not lost through the seals during this time.

   64,548 gallons of Stauffer Fyrquel GT were added to the twenty-five PCB contaminated turbine/compressor units from January 1, 1978 through March 1981 (ATTACHMENT NO. 5). The lubricant was Fyrquel GT, a non-PCB synthetic phosphate ester manufactured by Stauffer Chemical Company.

9. Funds expended prior to May 1, 1980 to reduce PCB concentrations in compressors.

   As shown on ATTACHMENT NO. 6, $2,114,850 was spent prior to May 1, 1980 to reduce the PCB concentrations in compressors.

10. Funds expended after May 1, 1980 to reduce PCB concentrations in compressors.

    As shown on ATTACHMENT NO. 7, $893,226 has been spent since May 1, 1980 to reduce the PCB concentrations in compressors. This does not include expenditures for incineration of PCB contaminated pipeline liquids or the incineration of approximately 600 drums of PCB contaminated turbine/compressor lubricant still in storage buildings.

ATTACHMENT NO. 1

TEXAS EASTERN

PCB LUBRICANT SUMMARY-1958 TO PRESENT

	Installed	Removed	1st Analysis		2nd Analysis		3rd Analysis		Drain & Flush
	Date	Date	Date	PPM	Date	PPM	Date	PPM	Date
Armagh, PA.	11/9/58	9/30/75	8/10/76	32,000	7/13/77	45,000	8/24/78	65	10/2/78
Barton, AL.	11/5/68	8/7/72					8/24/78	39,000	9/15/78
Bechtelsville, PA. NO. 5	11/7/67	6/16/77			7/13/77	9,200	8/24/78	19,000	10/23/78
Bernville, PA. NO. 1	10/24/58	6/2/77			7/13/77	29,000	8/24/78	31,000	10/9/78
Bernville, PA. NO. 2	11/1/68	6/2/77			7/13/77	13,000	8/24/78	25,000	10/16/78
Danville, KY. NO. 1	12/31/61	6/15/73	7/26/76	13,000	7/13/77	9,500	8/24/78	6,500	10/16/78
Danville, KY. NO. 2	12/31/61	6/15/73	7/26/76	10,000	7/13/77	5,200	8/24/78	5,100	10/23/78
Danville, KY. NO. 3	11/4/69	6/15/73	7/26/76	39,000	7/13/77	24,000	8/24/78	8,900	9/15/80
Delmont, PA.	12/31/62	7/7/76	8/12/76	71,000	7/13/77	91,000	8/24/78	60,000	10/23/78
Entriken, PA.	10/30/58	10/1/75	7/21/76	25,000	7/13/77	44,000	8/24/78	42,000	10/2/78
Gladeville, TN.	11/11/69	10/18/73	7/12/76	14,000	7/13/77	11,000	8/24/78	9,700	10/2/78
Grantville, PA. NO. 4	12/1/67	5/16/77			7/13/77	11,000	8/24/78	18,000	10/16/78
Hanover, N.J. NO. 1	11/1/65	10/18/76	8/5/76	9,600	7/13/77	14,000	8/24/78	11,000	10/23/78
Hanover, N.J. NO. 2	7/21/67	10/18/76	8/5/76	8,300	7/13/77	14,000	8/24/78	11,000	10/23/78
Huntsville, TX.	10/31/70	5/11/72	7/15/76	1,400	7/13/77	1,300	8/24/78	460	10/11/78
Kosciusko, MS.	12/31/62	11/10/76			7/13/77	14,000	8/24/78	11,000	10/16/78
La Rose, LA.	6/20/69	2/13/76	7/26/76	61,000	7/13/77	27,000	8/24/78	16,000	9/25/78
Lilly, PA.	7/21/69	3/30/75	7/21/76	19,000	7/13/77	22,000	8/24/78	10,000	9/25/78
Owingsville, KY. NO. 5	10/23/69	10/15/73	7/9/76	17,000	7/13/77	28,000	8/24/78	11,000	10/2/78
Perulack, PA. NO. 4	8/20/69	7/9/76	8/11/76	15,000	7/13/77	15,000	8/24/78	13,000	10/9/78
Shermans Dale, PA. NO. 1	11/13/58	5/11/77			7/13/77	21,000	8/24/78	49,000	10/9/78
Shermans Dale, PA. NO. 2	12/20/68	5/9/77			7/13/77	16,000	8/24/78	23,000	10/2/78
White Castle, LA.	10/1/68	10/20/77			7/13/77	12,000	8/24/78	7,600	10/28/78
Yazoo City, MS.	9/5/63	5/30/72	7/21/76	3,800	7/13/77	5,700	8/24/78	3,800	8/30/78

TRANSWESTERN

PCB LUBRICANT SUMMARY-1968 TO PRESENT

	Installed	Removed	1st Analysis		2nd Analysis		3rd Analysis		Drain & Flush
	Date	Date	Date	PPM	Date	PPM	Date	PPM	Date
Station 8, Corona, N.M.	July 1968	Dec. 1972	Dec. 1977	68	July 1978	144	Aug. 1978	320	Sept. 1978

4th Analysis		5th Analysis		Drain	6th Analysis		Drain	7th Analysis	
Date	PPM	Date	PPM	Date	Date	PPM	Date	Date	PPM
11/15/78	11				1/25/80	160	3/20/80	5/8/80	20
9/22/78	12				1/25/80	60	2/1/80	4/29/80	37
11/1/78	LT 10	4/19/79	120	4/25/79	2/19/80	49		4/18/80	36
10/23/78	10	4/19/79	340	4/25/79	1/18/80	120	1/29/80	4/18/80	15
11/16/78	11				1/18/80	87	1/29/80	4/18/80	38
12/1/78	10	3/29/79	59	4/25/79	1/25/80	65	2/1/80	4/18/80	49
12/1/78	10	3/29/79	51	4/25/79	1/25/80	76	2/1/80	4/30/80	41
9/21/78	LT 10	3/29/79	25		2/20/80	45		4/18/80	47
11/27/78	27				2/19/80	47		5/20/80	48
10/23/78	LT 10	4/3/79	53	4/25/79	2/11/80	170	4/20/80	4/18/80	ND10
11/27/78	LT 10	3/29/78	31		2/19/80	57	2/1/80	4/21/80	48
11/2/78	14				2/20/80	87	2/1/80	4/18/80	32
10/25/78	13	3/26/79	170	4/25/79	2/19/80	52	3/20/80	4/21/80	22
10/27/78	11	3/26/79	360	4/25/79	2/19/80	206	3/20/80	4/21/80	13
10/20/78	LT 10	4/30/79	ND 10		2/20/80	LT 5		2/12/80	ND5
1/20/79	LT 10	3/29/79	12		3/19/80	62	4/1/80	7/11/80	39
12/4/78	11				3/11/80	170	4/14/80	4/29/80	ND10
10/4/78	13				1/25/80	56	2/1/80	5/8/80	36
10/11/78	LT 10	3/27/79	36		2/19/80	57	2/1/80	5/27/80	ND10
10/18/78	LT 10	3/30/79	21		2/19/80	83	2/1/80	4/25/80	41
10/29/78	17				2/20/80	95	3/20/80	4/18/80	ND10
10/27/78	LT 10	3/29/79	38		2/20/80	100	3/20/80	4/18/80	ND10
11/9/78	40				1/25/80	77	2/1/80	5/27/80	40
9/8/78	24				2/19/80	40		4/29/80	35

4th Analysis		5th Analysis		6th Analysis		7th Analysis	
Date	PPM	Date	PPM	Date	PPM	Date	PPM
Sept. 1978	32	Oct. 1978	20	Feb. 20,1981	8	Feb. 25, 1981	8

ATTACHMENT NO. 1

8th Analysis		Drain	9th Analysis	
Date	PPM	Date	Date	PPM
1/23/81	61	3/5/81	3/9/81	13
1/21/81	93	2/24/81	2/25/81	8
1/19/81	64	2/19/81	2/23/81	ND 5
1/29/80	190	2/26/81	2/28/81	10
1/29/80	220	2/19/81	2/23/81	ND 5
1/19/81	77	2/27/81	2/28/81	ND 5
1/19/81	110	2/27/81	2/28/81	ND 5
1/19/81	37			
1/19/81	97	2/23/81	2/27/81	20
1/20/81	84	3/2/81	3/3/81	7
1/19/81	72	3/19/81	3/23/81	16
1/20/81	90	3/2/81	3/3/81	6
1/19/81	76	2/17/81	2/23/81	ND 5
1/19/81	160	2/18/81	2/23/81	ND 5
1/20/81	ND10			
2/3/81	1,000	3/2/81	3/3/81	80
1/21/81	ND 5			
1/23/81	170	2/23/81	2/27/81	ND 5
1/19/81	6			
1/21/81	23			
1/20/81	36			
1/20/81	19			
1/21/81	140	3/9/81	3/13/81	5
1/22/81	ND 10			

ATTACHMENT NO. 2

RECOMMENDED PROCEDURE FOR REDUCING THE PCB CONTENT OF THE SYNTHETIC TURBINE LUBRICANT

ENTRIKEN, PA
OCTOBER 2, 1978

Strict adherence to the following procedures should reduce the PCB content of the lubricant in the Entriken turbine to less than 10 ppm. Calculations are based on starting with 42,000 ppm contamination, changing out to 2,500 ppm contaminated lubricant from the Entriken make-up tank and flushing with 1,800 gallons of 150 ppm contaminated flushing oil from Corona.

1. Pump the lubricant from the lube oil tank into 55 gallon drums (18 gauge, 2 bung). These drums do not have to be clean. Affix an EPA warning label to each drum and mark each drum:

   ENTRIKEN, PA
   LUBE OIL TANK (1)
   No. ____ of ____ (Start with number one)

2. Pump the 2,500 ppm contaminated lubricant from the make-up tank into the lube oil tank.

3. Flush the lube oil make-up tank and transfer piping with three drums of flushing oil.

4. Operate the turbine for two hours to heat the lubricant.

5. After cool-down, pump the lubricant from the lube oil tank into 55 gallon drums (18 gauge, 2 bung). These drums do not have to be clean. Affix an EPA warning label to each drum and mark each drum:

   ENTRIKEN, PA
   LUBE OIL TANK (2)
   No. ____ of ____ (Start with number one)

6. To insure adequate drainage:

   a. Loosen flanges in piping inside lube oil tank and spread with wedges.
   b. Pump out both lube oil coolers.
   c. Drain fuel regulator.
   d. Drain starting turbine.
   e. Siphon ratchet housing.
   f. Loosen flanges in seal oil piping and spread with wedges.
   g. Drain both ends of de-gasser tank.
   h. Drain both seal oil traps.
   i. Drain both seal oil pumps.

7. Allow approximately 18 hours for the lube system to "bleed". This is very important.

8. Remove the lube oil filter cartridges and swab the inside of the filter cases. Put the filter cartridges in 55 gallon drums for shipment to incineration plant. Install new filter cartridges.

9. After the drainage is complete, swab the inside of the lube oil tank. Chemical respirators and protective clothing should be worn during this operation.

10. Pump 1,800 gallons of flushing oil (from Corona) into the lube oil make-up tank and transfer it to the lube oil tank. This will flush the make-up tank and transfer piping.

11. Operate the turbine for two hours to heat the flushing oil and to flush the system. Operate the emergency lube oil pump a minimum of five minutes.

12. After cool-down, pump the flushing oil in clean 55 gallon drums. Mark the drums:

    FLUSHING OIL
    ENTRIKEN, PA
    No. ____ of ____ (Start with number one)

13. Put a six ounce sample of the flushing oil in a screw-top container and label the container:

    TEXAS EASTERN
    ENTRIKEN, PA
    FLUSHING OIL
    DATE

14. To insure adequate drainage:

    a. Loosen flanges in piping inside the lube oil tank and spread with wedges.
    b. Pump out both lube oil coolers.
    c. Drain fuel regulator.
    d. Drain starting turbine.
    e. Siphon ratchet housing.
    f. Loosen flanges in seal oil piping and spread with wedges.
    g. Drain both ends of de-gassing tank.
    h. Drain both seal oil traps.
    i. Drain both seal oil pumps.

15. Allow approximately 18 hours for the lube system to "bleed". This is very important.

16. Remove the lube oil filter cartridges and swab the inside of the filter cases. Put the filter cartridges into 55 gallon drums for shipment to incineration plant. Install new filter cartridges.

17. After the drainage is complete, swab the inside of the lube oil tank. Chemical respirators and protective clothing should be worn during this operation.

18. Pump 2,800 gallons of new Stauffer Fyrguel GT into the lube oil and lube oil make-up tanks.

19. After 24 hours operation, take a sample of lubricant from the lube oil tank by dipping a clean ladle to the bottom of the lube oil tank and pouring six ounces into a screw-top container. Label the container:

    TEXAS EASTERN
    ENTRIKEN, PA
    LUBE OIL TANK
    DATE

20. Clean the ladle thoroughly with hot soapy water.

21. Take a sample from the lube oil make-up tank by dipping the ladle to the bottom of the lube oil make-up tank and pouring six ounces into a screw-top container. Label the container:

    TEXAS EASTERN
    ENTRIKEN, PA
    LUBE OIL MAKE-UP TANK
    DATE

22. Air Express both samples along with the sample of flushing oil to:

    GOLLOB ANALYTICAL SERVICE
    47 INDUSTRIAL ROAD
    BERKLEY HEIGHTS, NJ 07922

TEXAS EASTERN

ATTACHMENT NO. 3

INTEROFFICE CORRESPONDENCE

TO: Mr. E. C. Riall, Jr.   CO/DIV: Risk Mgmt/Safety

FROM: Charles G. Cornelius   DATE: August 15, 1978

SUBJECT: Recommended Personal Protection Equipment To Be Used In Removal of PCB Contaminated Synthetic Lubricants From Gas Turbines

1.	#8712 3M Organic Vapor Respirator . . . . (Lots of 300) . . .	$ 4.68 ea.
2.	#100K Kaycel Coverall with Elastic Wrist and Ankle . . . size S-M-L & XL	2.70 pr.
3.	#749 BR 14" PVC Heavy Duty Gloves	18.72 doz.
4.	#1440 Tingley Over the Shoe Boot . . . . size S-M-L & XL	11.50 pr.

The above items are stock and can be ordered from:

Vallen Corporation
Industrial Safety Division
13333 Northwest Freeway
P.O. Box 3587
Houston, TX 77001

(713) 462-8700

Recommended use:

1. Respirator can be used for complete job at one location by individual unless need arises during operation to change.
2. Coveralls should be changed daily or when they become soiled beyond use.
3. Gloves can be used for complete job at one location or when they become soiled beyond use.
4. Boots can be used for complete job at one location.

5. Under no circumstance should this equipment be removed from company property or be transported from one location to another after use.

CGC:t

cc: Forrest K. Casey
W. A. Dwire
J. Larry Griggs
E. J. Papacek

ATTACHMENT NO. #4

TEXAS EASTERN

INTEROFFICE CORRESPONDENCE

TO: F. L. Cohagan

CO/DIV: Risk Mgmt/Safety

FROM: W. W. Bednarsky

DATE: January 29, 1981

SUBJECT: Safe Practices and Protective Equipment To Be Used In Handling PCB-Contaminated Materials

Jobs may be performed where employees could be exposed to pipeline material possibly containing PCB. Such jobs could include removal of scrapers from scraper traps and pump-out of distillate storage tanks. In these cases, use of the personal protective equipment and clothing recommended below and adherence to the following recommended safe practices should protect our employees from PCB hazard.

Protective Equipment and Clothing

1. #8712 3M Organic Vapor Respirator
2. #K100 Kaycel Coverall with Elastic Wrist and Ankle
3. #749 BR 14" PVC Heavy Duty Gloves
4. #1400 Tingley Over-the-Shoe Boot
5. #160 Encon Goggle (or equivalent)

Safe Practices

Respirators, coveralls, gloves, boots, and goggles should be used only for the duration of one job at one location. If any article becomes soiled beyond use, it should be properly discarded and replaced. After use, protective equipment and clothing should be placed in fiber drums for storage.

Cloth rags should be used to soak up distillate from non-porous surfaces including scrapers if they are to be transported from the immediate job site. Used rags should be placed in fiber drums for storage. If distillate soaks into soil around the job site, the contaminated soil should be scooped and placed in fiber drums.

TEXAS
EASTERN

INTEROFFICE CORRESPONDENCE

TO: Mr. F. L. Cohagan
CO/DIV: Risk Mgmt/Safety

FROM: W. W. Bednarsky
DATE: January 29, 1981

SUBJECT: Procedure for Storage of Flammable Materials Containing PCB's - Large Quantities

Flammable and combustible liquids in excess of that permitted in inside storage rooms (see procedure for storing small quantities) shall be stored outside of buildings.

Storage of containers (not more than 60 gallons each) shall not exceed 1,100 gallons in one area. Areas shall be separated by a 5-foot clearance. Areas of storage shall not be nearer than 20 feet to a building.

The area shall be surrounded by a curb or earth dike at least 12 inches high. When curbs or dikes are used, provision shall be made for draining off accumulations of ground or rain water or spills of flammable or combustible liquids.

Storage areas shall be kept free of weeds, debris and other combustible material not necessary to the storage.

Adequate precautions shall be taken to prevent the ignition of flammable vapors. Sources of ignition include but are not limited to open flames, lightning, smoking, cutting and welding, hot surfaces, frictional heat, static, electrical, and mechanical sparks, spontaneous ignition including heat-producing chemical reactions, and radiant heat.

Hot work such as welding or cutting operations, use of spark-producing power tools, and chipping operations shall be permitted only under supervision of an individual in responsible charge.

Maintenance and operating practices shall be in accordance with established procedures which will tend to control leakage and prevent the accidental escape of flammable or combustible liquids. Spills shall be cleaned up promptly.

Leaking containers shall have the contents transferred to an undamaged container. The leaking container should be retained in the storage area for proper disposal of containers that have been used for storage of PCB's.

Transfer of flammable liquids from one container to another shall be done only when containers are electrically interconnected (bonded).

Smoking shall be prohibited except in designated localities. If storage area is outside of previously designated no smoking area "No Smoking" signs shall be conspicuously posted and no smoking is to be permitted within 100 feet of flammable material.

At least one portable fire extinguisher (30 lb. dry chemical) shall be located not less than 25 feet nor more than 75 feet from the flammable liquid storage area.

Materials containing PCB's when heated to decomposition emit highly toxic fumes. Extinguishment of these materials should not be attempted without the use of self-contained breathing equipment.

WWB:CGC:mk

TEXAS EASTERN

INTEROFFICE CORRESPONDENCE

TO: Mr. F. L. Cohagan

CO/DIV: Risk Mgmt/Safety

FROM: W. W. Bednarsky WWB

DATE: January 30, 1981

SUBJECT: Procedure for Storage of Flammable Materials Containing PCB's - Small Quantities

No more than 25 gallons of flammable or combustible liquids shall be stored in a room outside of an approved storage cabinet. Quantities of flammable and combustible liquid in excess of 25 gallons shall be stored in an acceptable or approved cabinet. Not more than 60 gallons of flammable or combustible liquids shall be stored in any one storage cabinet. Not more than three such cabinets may be located in a single storage area.

Electrical wiring and equipment located in inside storage rooms shall be approved for Class I Division I Hazardous Locations.

Every inside storage room shall be provided with either a gravity or a mechanical exhausting system.

In every inside storage room there shall be one clear aisle at least 3 feet wide.

Flammable or combustible liquids incidental to the principle business shall be stored in closed containers.

Open flames and smoking shall not be permitted in flammable or combustible liquid storage areas. Cabinets shall be labeled in conspicuous lettering, "Flammable - Keep Fire Away."

Maintenance and operating practices shall be in accordance with established procedures which will tend to control leakage and prevent the accidental escape of flammable or combustible liquids. Spills shall be cleaned up promptly.

At least one portable fire extinguisher (30 lb. dry chemical) shall be located outside of but not more than 10 feet from the door opening into any room used for storage.

At least one portable fire extinguisher (30 lb. dry chemical) must be located not less than 10 feet, nor more than 25 feet, from any flammable liquid storage area located outside of a storage room but inside a building.

Materials containing PCB's when heated to decomposition emit highly toxic fumes. Extinguishment of these materials should not be attempted without the use of self-contained breathing equipment.

WWB:CGC:cm

TEXAS EASTERN

INTEROFFICE CORRESPONDENCE

TO: F. L. Cohagan

CO/DIV: Risk Mgmt/Safety

FROM: W. W. Bednarsky

DATE: January 29, 1981

SUBJECT: Safe Practices and Protective Equipment To Be Used In Handling PCB-Contaminated Materials

Jobs may be performed where employees could be exposed to pipeline material possibly containing PCB. Such jobs could include removal of scrapers from scraper traps and pump-out of distillate storage tanks. In these cases, use of the personal protective equipment and clothing recommended below and adherence to the following recommended safe practices should protect our employees from PCB hazard.

Protective Equipment and Clothing

1. #8712 3M Organic Vapor Respirator
2. #K100 Kaycel Coverall with Elastic Wrist and Ankle
3. #749 BR 14" PVC Heavy Duty Gloves
4. #1400 Tingley Over-the-Shoe Boot
5. #160 Encon Goggle (or equivalent)

Safe Practices

Respirators, coveralls, gloves, boots, and goggles should be used only for the duration of one job at one location. If any article becomes soiled beyond use, it should be properly discarded and replaced. After use, protective equipment and clothing should be placed in fiber drums for storage.

Cloth rags should be used to soak up distillate from non-porous surfaces including scrapers if they are to be transported from the immediate job site. Used rags should be placed in fiber drums for storage. If distillate soaks into soil around the job site, the contaminated soil should be scooped and placed in fiber drums.

> For proper storage of PCB-contaminated materials, see procedures outlined elsewhere.
>
> If an employee's skin contacts PCB-contaminated material, he should wash immediately with soap and water. All employees working around PCB should wash thoroughly before eating or smoking and again at the end of the work day.
>
> When handling distillate possibly containing PCB, employees should treat the distillate as a flammable liquid, observing usual restrictions for controlling flammability hazard.

The Safety Department will sample for airborne PCB as necessary during these operations. Results of PCB sampling will be permanently filed in the Safety Department and will be available to Gas Operations.

WWB:JET:hl

TEXAS EASTERN

INTEROFFICE CORRESPONDENCE

TO: F. L. Cohagan

CO/DIV: Risk Mgmt/Safety

FROM: W. W. Bednarsky

DATE: January 29, 1981

SUBJECT: Shipment of Small Quantities of Flammable Liquids Via Common Carrier

The shipping of flammable liquids via common carrier is regulated by the Department of Transportation in 49CFR Parts 172-173. In general, shipping of limited quantities of flammable liquids are excluded from the packaging specification requirements of these regulations. Please refer to the following guidelines when offering flammable liquids with flash points above 73°F for shipment via common carrier.

GUIDELINES

Samples offered for shipment on a passenger carrying aircraft should be in metal containers not over one (1) quart capacity, packed in strong outside containers such as DOT 12B specification cardboard boxes. Only one (1) container of one (1) quart capacity is allowed per package.

Samples offered for shipment on a cargo only aircraft should also be in metal containers not over one (1) quart capacity, packed in strong containers. When shipping on cargo aircraft, however, each package may contain up to ten (10) gallons of flammable liquid.

Whether offered for shipment on passenger or on cargo aircraft, the outside package should bear labels indicating "flammable liquid." These labels are available through local vendors.

A final requirement for shipping via aircraft is the completion of the "Shipper's Certification for Restricted Articles." This form, furnished by the carrier upon request, is our means of informing the carrier of the proper shipping name, class, quantity, and flash point of the articles offered for shipment. For petroleum distillate the flash point should be shown as "above 73°F."

The requirements for shipping small quantities of flammable liquids by ground transportation carrier are essentially the same as for shipping by aircraft. The individual carrier should be contacted in advance to obtain the necessary shipper's certification forms.

WWB:JET:hl

ATTACHMENT NO. 5

COMPRESSOR SEAL FAILURES
AND
LUBE OIL CONSUMPTION
1978 thru March 1981

STATION	UNIT NO.	SEAL FAILURE DATE	LUBE OIL USED(GAL.)
Armagh, PA.	1		963
Barton, AL.	1		1,539
Bechtelsville, PA.	1	1/15/81	3,887
Bernville, PA.	1		2,747
Bernville, PA.	2		1,334
Corona, N.M.	1	June 79,Sept.79,Oct.79,Aug.80	14,469
Danville, KY.	1		1,821
Danville, KY.	2		3,572
Danville, KY.	3	3/13/79,5/29/80,7/8/80,11/12/80	5,113
Delmont, PA.	1		615
Entriken, PA.	1		883
Gladeville, TN.	1	7/22/80	973
Grantville, PA.	4		3,400
Hanover, N.J.	1		313
Hanover, N.J.	2		465
Huntsville, TX.	1		3,288
Kosciusko, MS.	1		0
La Rose, LA.	1		3,739
Lilly, PA.	5	9/17/79	1,035
Owingsville, KY.	5	2/13/79, 1/27/81	4,852
Perulack, PA.	4		266
Shermansdale, PA.	1		3,056
Shermansdale, PA.	2		418
White Castle, LA.	1	5/17/78,8/18/78,9/20/78	1,895
Yazoo City, MS.	1	8/6/80,8/19/80,11/6/80,11/25/80	3,905

ATTACHMENT NO. 6

EXPENDITURES

Prior to May 1, 1980

I. Disposal Costs:

1. Incineration of 63,454 Gal. PCB Contaminated Lubricant (10.46 lb/gal.)

   Incineration at $0.10/lb. = $66,373
   Freight at $2.00/cw = 13,274
   $79,647

2. Incineration of 74 drums of PCB Contaminated Solids (200 lb/ea.)

   Incineration at $90.00/drum = $6,660
   Freight at $2.00/cw = 296
   $6,956

3. Land-Fill 20,954 Gal. PCB Contaminated Lubricant (less than 500 ppm)

   Land-Fill at $1.18/gal. = $24,726
   Freight at $3.00/cw = 6,129
   $30,855

4. Land-Fill 184 drums PCB Contaminated Lubricant (less than 500 ppm)

   Land-Fill at $90.00/drum = $16,560
   Freight at $3.00/cw = 2,760
   $19,320

II. Replacement Costs:

1. Purchase 60,246 Gal. New Lubricant

   Fyrquel GT at $5.20/Gal. = $313,279
   Freight at $2.00/cw = 11,748
   $325,027

2. Purchase 102,162 Gal. New Lubricant

   Fyrquel GT at $10.50/Gal. = $1,072,701
   Freight at $3.00/cw = 29,880
   $1,102,581

ATTACHMENT NO. 6

III. Storage Costs:

1. Thirteen Hundred Seven Drums of PCB Contaminated Lubricant put into storage

Construct two buildings at $12,400/ea. = $24,800
Construct three buildings at $10,000/ea. = 30,000
Construct one building at $500/ea. = 500
Rent one building at $175/mo. = 6,300
$61,600

IV. Sample Analyses

1. Analyses by Contract Laboratory

Sample Analyses at $120/ea. sample = $32,864

V. Company Labor, Equipment, Overhead

1. Seventy-six (76) decontamination procedures performed at $6,000/ea. = $456,000

TOTAL $2,144,850

NOTE: The freight rates are estimates based on the prevailing freight rates at the time of the shipments.

The Company expenses are estimates based on the cost of operating a six-man crew and the necessary support equipment for three days.

ATTACHMENT NO. 7

EXPENDITURES

After May 1, 1980

I. Disposal Cost:

1. Incineration of 634 drums of PCB Contaminated Lubricant

   Incineration at $300./drum plus freight = $221,046

2. Land-Fill of 28,631 gal. of less than 500 ppm PCB Contaminated Lubricant

   Land-Fill at $1.18/gal. plus freight = $52,844

II. Replacement Cost:

1. Purchase 33,901 Gal. New Lubricant

   Fyrquel GT at $15.00/gal. plus freight = $483,320

III. Sample Analysis

1. Analysis by Contract Laboratory

   Sample Analysis at $120/ea.sample = $17,016

IV. Company Labor, Equipment, Overhead

1. Seventeen (17) decontamination procedures at $7,000/ea. = $119,000

TOTAL $893,226

NOTE: The Company expenses are estimates based on the cost of operating a six-man crew and the necessary support equipment for three days.

The above cost do not include the cost of disposing of PCB contaminated liquids or the cost of disposing of approximately 600 drums of PCB contaminted lubricants in storage buildings as of May 15,1981.

Exhibit W

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 27 19

OFFICE OF ENFORCEMENT

Mr. F. L. Cohagen
Vice President - Operations
Texas Eastern Transmission Corp.
P. O. Box 2521
Houston, TX 77

Dear Mr. Cohagen:

Early this year, it was discovered that polychlorinated biphenyls (PCBs) were present in the condensate in some natural gas pipelines. Since that time, the Environmental Protection Agency (EPA), together with other Federal agencies, has been seeking to work cooperatively with the natural gas transmission companies to assess the scope of the problem. This cooperative effort has established a national testing program to develop a profile of PCB contamination in the gas lines. That program is now almost completed and your company has been identified as owning pipeline contaminated with PCBs. Since the pipe contains PCBs in concentrations greater than 50 ppm, the pipeline is a PCB Item within the meaning of 40 CFR Section 761.2(x). The use of such items is regulated pursuant to 40 CFR 761.30 and Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. Section 2605(e). The Environmental Protection Agency wishes to work with you to resolve this situation as soon as possible.

In summary, this letter sets out a four step program for quickly reducing any risks from the PCBs in your pipelines. The first step is to ensure that any PCBs being removed from your system are handled properly. The next step will be to obtain information on ways to prevent further movement of PCBs into other systems. The third step is to implement the best option identified in step two. The final step will be to obtain information on the possible methods for removing any remaining PCBs from the system. The details of these requirements appear below.

The Agency's most immediate concern is that PCB contaminated condensate handled as part of normal operations does not pose any human or environmental risk. Accordingly, we request that you prepare and submit to the Agency a plan for handling all PCB liquids removed from your system. That plan should include the following:

1) A description of the locations from which the liquids are being removed;

2) An estimate of the amounts of condensate being removed;

3) A description of the measures being taken to protect workers handling any items coming in contact with PCBs; and

4) Procedures you will follow for handling, marking, storing and disposing of the PCBs in accordance with TSCA and the applicable Department of Transportation regulations.

The next concern of the Agency is to prevent any movement of PCBs from your system into other transmission or distribution systems. Although it may be helpful to eliminate the sources of the contamination, it may be that introduction of PCBs into other systems can be stopped most quickly by other methods; for example, through the use of scrubbers. Accordingly, EPA requests that you begin preparing a report on the technical alternatives for preventing further movement of PCBs into other transmission or distribution systems. This report should include the following:

1) A description of all possible alternatives for preventing movement of PCBs into other systems.

2) The best available estimates of the cost, effectiveness, and time needed for each alternative.

3) Your assessment of the feasibility of each method.

4) A discussion of the potential for human and environmental exposure to PCBs of each method.

Once your company submits this report to EPA, we will enter into discussions with you to agree on which program is most appropriate to stop any introduction of PCBs into other systems. Once a method is agreed upon, you should submit and implement a plan to achieve this result as soon as possible. That plan should include the following:

1) A suggested implementation timetable.

2) A complete description of the agreed upon methodology.

3) Procedures you will follow to assure worker safety.

4) Procedures you will follow for handling, marking, storing, and disposing of PCBs in accordance with the law.

5) A plan for monitoring the effectiveness of the program and reporting this information to EPA.

Even if it is possible to stop any entry of PCBs into other systems without abating the source, EPA nonetheless expects you to identify and eliminate the source of the PCBs in your system. Accordingly, you should begin all testing necessary to determine the exact source of PCBs in your condensate. As soon as you have identified those sources, please submit a report to EPA containing the following information:

1) A complete identification of all sources of the PCBs in your system.

2) A plan for eliminating the source. This plan should include:

   - A suggested timetable;

   - Measures to assure the safety of workers;

   - Procedures you will follow for handling, storing, and disposing of the PCBs in accordance with the law.

3) A monitoring plan, to assure that the source of PCBs has been eliminated.

Finally, the steps you take to prevent entry of PCBs into other systems and to abate the source may not necessarily remove all PCB contaminated condensate currently in your transmission lines. If the steps you have taken would not have removed the PCBs from the pipeline, it will be necessary for you to submit a report to EPA detailing the following information:

1) The length of pipe still contaminated;

2) An estimate of the amount of condensate still in the pipe, and the concentration of PCBs in it;

3) An identification of all possible methods for removing the remaining PCB contamination, together with the best possible estimates of the cost, effectiveness, feasibility, and length of time necessary for each method.

When EPA receives this report, it will evaluate this information in light of your success in eliminating any movement of PCBs into other systems. On this basis, EPA in cooperation with your company will decide what the most appropriate action is for dealing with the remaining contamination.

By two weeks from the date of this letter, please inform EPA when you expect to submit the reports required above and the reasons for the proposed deadlines. These dates will be reviewed to make sure there is no undue delay.

The Agency is willing to discuss any matter which will further the goal of obtaining the best protection from the hazards of PCBs. Any questions you may have, as well as any report required by this letter, should be directed to:

Mr. John Seitz, Chief
Compliance Monitoring Branch
Pesticides and Toxic Substances
Enforcement Division
Environmental Protection Agency
401 M St. S.W.
Washington, D.C. 20460

Thank you for your cooperation in this program. I am certain that with your continued participation, we will be able to solve this problem quickly and effectively.

Sincerely yours,

A.E. Conroy II

A. E. Conroy II, Director
Pesticides and Toxic Substances
Enforcement Division

Enclosure

EPA United States Environmental Protection Agency **DECLARATION OF CONFIDENTIAL BUSINESS INFORMATION**	EPA Regional Office Address OE/PTSED EPA HEADQUARTERS
	Date Information submitted pursuant to EPA's letter of May 27, 1981
Name of Individual E. L. COHAGEN	Title VICE PRESIDENT - OPERATIONS
Firm Name TEXAS EASTERN TRANSMISSION CORP.	Firm Address P. O. BOX 2521 HOUSTON, TX 77001

Information Designated as Confidential Business Information:

Acknowledgment by Claimant

The undersigned acknowledges that the information described above is designated as Confidential Business Information under Section 14(c) of the Toxic Substances Control Act. The undersigned further acknowledges that he/she is authorized to make such claims for his/her firm.

The undersigned also certifies that each item described above meets all of the following criteria: (1) The company has taken measures to protect the confidentiality of the information and it intends to continue to take such measures; (2) The information is not, and has not been reasonably attainable without the company's consent by other persons (other than governmental bodies) by use of legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding); (3) The information is not publicly available elsewhere; and (4) Disclosure of the information would cause substantial harm to the company's competitive position.

Signature (Owner, Operator, Agent)	Name of Inspector Title NA
Title	Inspector's Signature NA

Exhibit X

TEXAS
EASTERN
Gas Pipeline Company
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

F. L. COHAGAN
VICE PRESIDENT

October 14, 1981

Mr. John Seitz, Chief
Compliance Monitoring Branch
Pesticides and Toxic Substances
  Enforcement Division
Environmental Protection Agency
401 "M" Street S.W.
Washington, D.C. 20460

Dear Mr. Seitz:

At our joint meeting with FERC staff on October 6, 1981, Mr. Rich Hoffman of FERC requested certain information on liquid removal that would result from the installation of the dehydration facility proposed at Grand Chenier as a part of our overall PCB removal program. Attached for your information and further handling with Mr. Hoffman, and others as you deem necessary, is information furnished by our engineers.

We feel that the dehydrator installation is an essential element in our overall program which will contribute significantly to the effectiveness and success of the program. We appreciate your understanding that our primary objective is the elimination of PCBs and that justification of the dehydrator installation is based upon that objective. We believe that adequate water removal will be achieved by the dehydrator installation and materially contribute to the overall goal of eliminating PCBs from the system.

Although Texas Eastern operates a high pressure relatively warm gas transmission operation, it is a fact that we do accumulate and remove free water, oily water and liquid hydrocarbons, most of which contain PCBs at scrubber installations, strainers, pig traps, drips, valve bodies and other liquid removal points. Actual liquids removed from the contaminated portion of the Texas Eastern system for the 12-month period of July 1980 through June 1981 was 129,719 gallons.

P O BOX 2521 HOUSTON, TEXAS 77001 (713) 759-4437

Mr. John Seitz
October 14, 1981
Page 2

As we previously discussed with you, we receive what can be described as "very dry" gas from our 36" Venice line. Most of this gas is processed at the Venice, Louisiana plant. The second main source of gas from onshore Texas and from Mexico can be characterized as "dry" gas. The water content may however from time to time reach 5 to 6 pounds per million cubic feet. The other major source of gas from offshore Cameron is higher in water content than the other two sources and is the line on which we would place a dehydration plant capable of reducing the water content down from 7 pounds to 3 pounds or less. We believe the removal of water at the south end of the system will reduce the water that must be removed in conjunction with other liquids up the line. The liquids containing PCBs including the water removed at these points must then be hauled considerable distances to approved disposal areas. Water removal at the Grand Chenier station will appreciably reduce the liquid volumes required to be handled downstream and thus the cost related to this operation.

In addition to the water removal along the Texas Eastern system, condensed water occurs in our customers' systems downstream of pressure regulators. Water, together with liquid hydrocarbons, are normally removed downstream from the pressure reduction valve by means of drips. If these liquids contain PCBs, the liquids must be disposed of by approved means. The attached memorandum with calculations prepared by our Engineering Departments describes the water fallout problem.

We appreciate the careful attention which you, your staff and others are giving to our proposed plan for PCB removal, and we look forward to concurrence in that regard which will allow us to get started on all phases of our PCB removal program.

Sincerely,

F L Cohagan
F. L. Cohagan

FLC:lk
Attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

Exhibit Y

DEC 7 1981

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

F. L. Cohagan
Vice President
Texas Eastern Gas Pipeline Company
P.O. Box 2521
Houston, Texas 77001

Dear Mr. Cohagan:

In my letter to you of November 9, 1981, I mentioned that a suggested monitoring plan for transmission companies implementing remedial measures would be forwarded to you. A copy of this suggested monitoring plan is enclosed.

It is suggested that you adapt this plan to meet the needs of your company's specific PCB contamination problem and remedial measures program. Please keep the Agency informed of your remedial activities and the results of your monitoring. Correspondence concerning these matters should be addressed to:

John S. Seitz, (EN-342)
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

As remedial and monitoring programs are implemented, EPA will continue to work closely with each transmission company to determine the need for: modifications to remedial programs, continued monitoring, or curtailment of monitoring activities when contamination problems are solved.

Thank you for your cooperation in this matter. If you have any questions concerning monitoring, please contact John Seitz at 202-472-3701.

Sincerely yours,

A. E. Conroy II

A. E. Conroy II, Director
Pesticides and Toxic Substances
Enforcement Division

Enclosure

SUGGESTED TRANSMISSION COMPANY REMEDIAL MONITORING

I. BACKGROUND

Earlier this year, several natural gas transmission companies which participated in the EPA/gas industry cooperative sampling program identified PCB levels at or greater than 50 ppm in condensate from portions of their systems. These companies have instituted remedial programs to rectify this contamination problem. This document sets forth a suggested monitoring program which will supply information needed by the companies and EPA to determine the success of the remedial efforts.

In summary the suggested monitoring consists of: condensate sampling at key locations where gas is purchased and sold, and at major condensate collection points along the transmission line; tracking the volume of condensate collected at these key locations; and limited gas stream sampling at major sales points.

The Agency is aware that each company's situation is unique due to system design, system operation practices, PCB contamination situation, and remedial plans. However, because of the interrelation of the various companies involved, it is important for EPA to monitor the situation with data that is as uniform as possible. For these reasons, each company should adapt this monitoring plan to their individual situation, while still following the essential outline of this plan as closely as possible.

The details of this suggested monitoring program are explained below.

II. CONDENSATE SAMPLING

In order to closely track PCB contamination levels at certain key locations, condensate samples should be collected at the points outlined below.

1) The three locations on the contaminated portion of the system where the largest volume of gas is supplied to distribution companies. It is suggested that, in

addition to these three sales points, an additional sample be collected at one utility sales point in each state supplied by a contaminated portion of your system. One control sample should also be collected at a distribution supply location on a section of your system which is not contaminated.

2) Three points on the contaminated portion of the system where gas is supplied to other transmission companies.

3) Three condensate collection points within the contaminated portion of the system (excluding sales and interchange points) where large volumes of condensate are normally found.

4) Three locations where gas is purchased from another transmission company, particularly sites which are a potential source of PCBs entering your system.

5) One point where gas is received from an underground storage field on the contaminated portion of your system.

6) One location downstream and upstream of points where new equipment such as filter/separators, scrubbers, drips etc. are installed as part of your remedial effort. Additionally, condensate sampling should be conducted before and after other remedial steps such as pigging are carried out.

Reference to sampling locations, points, or sites refers to geographic location. If two or more lines operate in parallel at one of the geographic locations selected for sampling, each line should be sampled at that location.

This sampling should begin in January 1982 and continue until March 1983. It is suggested that condensate samples should be collected monthly during periods of high flow volume and quarterly during periods of low flow. Suggested sampling dates are outlined in Part VI below. To facilitate analysis and discussion of the data, it is suggested that condensate sampling results should be reported in the format of Appendix I.

III. CONDENSATE REMOVAL

Those transmission companies with PCB contaminated lines are systematically removing contaminated pipeline liquids as part of their remedial programs. Each company should submit information, according to the schedule found in Part VI below, showing the volume of PCB contaminated liquids collected during each reporting period. It is suggested that this information be submitted in the format of Appendix II. Specifically the following information is requested:

- o The volume of condensate collected from those points chosen for monitoring in Part II above.
- o The total volume of condensate collected from the contaminated portion of the system having a PCB concentration of 50 to 500 ppm (based on previous testing or tests on the specific liquids involved).
- o The total volume of condensate collected from the contaminated portion of the system having a PCB concentration of 500 ppm or greater (based on previous testing or tests on the specific liquids involved).

This information will be used to assess the magnitude of the contamination and trends indicating improvement.

IV. GAS STREAM SAMPLING

Gas stream sampling should be conducted at the three major sales points selected for condensate sampling in Part II, number 1, above. One gas sample at each of these points should be collected in February 1982, June 1982, September 1982, and February 1983. These samples should be collected in conjunction with condensate samples. Gas stream samples should be collected using the June 1981, "Method to Measure PCBs in Natural Gas Pipelines", EPA 600/4-81-048 (method section pages A-1 through A-16). Questions concerning the technical aspects of gas stream sampling should be addressed to Michael Wood, PTSED, 202-472-3701, or Dr. William Mitchell, ORD, 919-541-2769. It is suggested that the gas sampling results be reported in the format of Appendix III.

These results will be used to determine the potential movement of PCBs in the gas stream under the present contamination situation and as the contamination levels are reduced.

V. QUALITY ASSURANCE - TECHNICAL ASSISTANCE

In order to determine the accuracy of sample analyses, the Agency will make available two 'check' samples of pipeline condensate containing a known quantity of PCBs for analysis by laboratories utilized during this program. These samples will be prepared and distributed by the National Enforcement Investigations Center (NEIC) in Denver, Colorado.

EPA will notify you prior to the check samples being sent to the laboratory. The laboratory will also be notified directly by NEIC prior to shipment of the samples. Questions and analytical results should be addressed directly to NEIC. NEIC will tabulate and analyze the results and provide this information to the individual laboratories and to EPA headquarters. EPA headquarters will inform each transmission company of the results for the laboratories they are using.

EPA will also provide technical assistance for questions relating to sample analyses. The EPA technical contact is Dean Hill of NEIC. Dean may be contacted at 303-234-3751. Requests for split analyses of problem samples should be referred directly to Mr. Hill.

VI. SUBMISSION OF INFORMATION

Each company should develop an initial report outlining their specific sampling plan. This should include:

- A list of the exact location of the sampling sites including type of sampling point, i.e. a drip or scrubber, etc., and the category under which the point falls in Part II above.

- A list of condensate collection points for reporting under Part III above, if condensate is not removed at the exact location where samples will be collected. This list would be needed, for example, in cases where the sampling point is a valve and the condensate from that portion of the line is removed at a drip three miles upstream.

- A system map indicating the location of sampling points (Part II) and condensate collection points (Part III).

- The name, address, and contact person at each laboratory used.

It is requested that this information be submitted to EPA by January 12, 1982.

It is also requested that monitoring reports be submitted according to the following schedule:

Report Date	For Samples Collected During
January 15, 1982	December 1981
April 15, 1982	January - March 1982
July 15, 1982	June 1982
October 15, 1982	September 1982
January 15, 1983	October - December 1982
April 15, 1983	January - March 1983

It is suggested that monitoring reports should be submitted in the formats of Appendices I - III which are attached. The reports should be prefaced with a short summary of ongoing remedial activities and any problems or unique situations you feel the Agency should be aware of.

APPENDIX I - SUGGESTED FORMAT FOR REPORTING CONDENSATE SAMPLING RESULTS

COMPANY:

DATE OF REPORT:

LOCATION	CATEGORY*	SAMPLING DATE	NUMBER	VOLUME	RESULTS	ANALYTICAL AROCLOR	COMMENTS	LABORATORY USED
					EXAMPLE			
BOISE, ID	1	12/15/81	A-1	40 ml	104 ppm	1242	104% Recovery	Joe's Lab
BOISE, ID	1	1/11/82	A-2	50 ml	97 ppm	1242	97% Recovery	Smith Lab
XYZ, OR	4	12/10/81	A-3	100 ml	1,000 ppm	1221		Smith Lab
XYZ, OR	4	12/10/81	A-4	100 ml	590 ppm	1242		Smith Lab
XYZ, OR	4	1/20/82	A-5	30 ml	890 ppm	1221	110% Recovery	Joe's Lab
X , OR	4	1/20/81	A-6	50 ml	410 ppm	1242		Joe's Lab

* CATEGORY - sampling site category from Part II.

APPENDIX II - SUGGESTED FORMAT FOR CONDENSATE COLLECTION REPORT

COMPANY:

DATE OF REPORT:

CATION	CATEGORY	DATE OF COLLECTION	VOLUME COLLECTED	PCB CONCENTRATION	DATE OF LAST SAMPLE	STORED AT	DISPOSED AT
				EXAMPLE			
SE, ID DRIP E #3	1	12/15/81	200 gallons	104 ppm - 1242	12/15/81	LINCOLN, MO	
SE, ID DRIP E # 3	1	1/20/82	130 gallons	97 ppm - 1242	1/11/81	LINCOLN, MO	
, OR COMPRESSOR .TION LINE #12	4	1/20/82	2,000 gallons	890 ppm - 1221	1/20/82		KV INCINERATOR
, OR COMPRESSOR IE # 13	4	1/20/82	200 gallons	410 ppm - 1242	1/20/81		KV INCINERATOR

TOTAL LIQUIDS CONTAINING 50 TO 500 PPM PCBs REMOVED FROM PCB CONTAMINATED PORTION OF SYSTEM 12/81 - 1/82 :	15,000 gallons
TOTAL LIQUIDS CONTAINING 500 PPM OR GREATER PCBs REMOVED FROM PCB CONTAMINATED PORTION OF SYSTEM 12/81 - 1/82 :	5,000 gallons

APPENDIX III - SUGGESTED FORMAT FOR GAS SAMPLING RESULTS

COMPANY:

SAMPLING LOCATION:

DATE OF SAMPLING:

SAMPLE NUMBER:

SAMPLE VOLUME: In liters of gas

ANALYTICAL RESULT: As ug/M^3 or ng/M^3

LIMIT OF DETECTION:

COMMENTS:

BLANK RESULT:

ASSOCIATED CONDENSATE SAMPLING RESULT:

Exhibit Z

TEXAS
EASTERN
Gas Pipeline Company
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

F. L. COHAGAN
SR. VICE PRESIDENT

November 19, 1985

Mr. John S. Seitz
Chief Executive Officer
Compliance Monitoring
Office of Pesticides and
  Toxic Substances
Environmental Protection Agency
401 "M" Street, S.W.
Washington, DC 20460

Dear Mr. Seitz:

During our August 29, 1985 meeting in your office, we discussed the historic practice of the gas pipeline industry of using earthen pits for disposal of waste liquids at compressor stations and the possible presence of PCBs in closed pits at some of our compressor stations. You requested a letter from us providing information about those pits. In response, Attachment "A" is a tabulation of the requested information for pits associated with portions of our system that are subject to our PCB cleanup program. Attachment "B" is a tabulation for pits associated with portions of our system, operating consistent with the use authorization of 40 CFR § 761.30 (i), 49 Fed. Reg. 28172 (July 20, 1984), that may have been exposed to PCB concentrations higher than the 2 parts per million (ppm) level of quantification but below 50 ppm. For the sake of completeness, we have included as Attachment "C" a tabulation of pits associated with the remainder of our system. The attachments set forth available information for each listed pit regarding location, pit size, predominant usage, current status, and closure date.

D. J. & N [illegible] knowledge [illegible] p. [illegible]

Consistent with industry practice, Texas Eastern historically used pits at compressor stations for holding materials that consisted of: pipeline condensates and distillates ("pipeline liquids") drained from scrubbers or incoming pig runs; waste lubricating oils from compressors, which resulted from external drips or seeps; and miscellaneous maintenance-related wastes. In 1975, Texas Eastern installed liquid collection equipment, consisting of a pressure diffuser tank and an accumulation tank, at its Owingsville, Kentucky station. The success of this equipment led Texas Eastern to begin a system-wide program of replacing pits with similar equipment. The replacement program has been completed.

P. O. BOX 2521 HOUSTON, TEXAS 77252 (713) 759-4437

As you know, the presence of PCBs in pipeline liquids was discovered in 1981 and was attributable to leaks of lubricating oils from compressors into the pipeline system. Texas Eastern had begun using PCB lubricating oil at remote operated, centrifugal turbine stations in 1958, following turbine fires that had severely damaged two Texas Eastern units. The last time Texas Eastern initiated the use of PCB lubricating oil at one of its facilities was at Huntsville, Texas in 1970. At that time, Texas Eastern had 24 PCB-containing turbines in 19 locations in nine states. In early 1972, because of environmental concerns, Texas Eastern began phasing out the use of PCB lubricants. None of the drained lubricating oils containing PCBs (PCB based lubricants or subsequent replacements) were placed in pits. The only materials that were disposed of in pits and that may have contained PCBs were pipeline liquids, which may have been contaminated by PCB lubricant drips, and waste oils.

All earthen pits shown on Attachments "A" and "B" have been backfilled. Backfilling historically was the method for closing this type of pit. Normally, the dikes were pushed in and new earth added to prevent rainwater accumulation or percolation. Observations of these closed earthen pits indicate little percolation appears to be occurring.

As can be seen from the attachments, we generally lack data as to whether and, to what extent, PCBs may be present in the closed pits. Little sampling has been performed. To obtain additional data, Texas Eastern has selected an environmental engineering consultant firm, Roy F. Weston Inc., who will develop and conduct a pilot sampling program to help determine the extent of PCB contamination, if any, in the pits.

In addition to gathering information concerning earthen pits associated with our system, we also have investigated underground steel or concrete tanks that may have been used as sumps at some of our stations. Most of these tanks are associated with facilities which were acquired after World War II from the federal government and many have never been used by Texas Eastern. In three of these tanks, PCBs have been detected. The materials in these three tanks are being removed and transported for proper disposal offsite. Texas Eastern is currently sampling the contents of other similar underground tanks. If PCBs are detected, Texas Eastern will remove and transport the material offsite for proper disposal.

As we discussed at the meeting, Texas Eastern would appreciate your suggestions concerning our investigative program. Please let us know if there is any additional information that you might need.

Sincerely,

F.L. Colagan

F. L. Colagan

FLC:RJK:tm

Attachments

PAGE 1 OF 4

ATTACHMENT "A"

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT. '85 STATUS	DATE CLOSED	REMARKS
1	Joaquin	TX	40'Diam x 4'Deep	Unknown	Pipeline fluid, 1% or less of other liquids	Closed	7/82	
2	LaRose	LA	40'x 100'x8'Deep	-0-	Pipeline fluid only	Closed	1966	
3	St. Francisville	LA	100'x 150'x 17' Deep	4278 ppm	Pipeline fluid only	Closed	8/84	Oil was incinerated, sludge solidified & backfilled
			20'Diam x 10' Deep	Unknown	Pipeline fluid only	Closed	12/69	
4	Union Church	MS	51'Diam x 5'Deep	"A" 1129 ppm	Pipeline fluid only	Closed	9/84	Oil was incinerated, sludge solidified & backfilled
			80'Diam x 8'Deep	"B" 386 ppm	Pipeline fluid only	Closed	9/84	Oil was incinerated, sludge solidified & backfilled
5	Clinton	MS	70'Diam x 7'Deep	Unknown	Pipeline fluid only	Closed	9/84	Oil was incinerated, sludge solidified & backfilled
6	Kosciusko	MS	35'x 35'x 5'Deep	Unknown	Pipeline fluid only	Closed	6/79	
7	Egypt	MS	17'x 18'x 6'Deep	Unknown	Pipeline fluid only	Closed	1/81	
8	Barton	AL	55'x 55'x 18'Deep	Unknown	Pipeline fluid only	Closed	12/81	
9	Mt.Pleasant	TN	16'x 16'x 6'Deep	Unknown	Pipeline fluid only	Closed	4/78	

ATTACHMENT "A"

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT. '85 STATUS	DATE CLOSED	REMARKS
10	Gladeville	TN	55'x 48'x 4'Deep "A"	Unknown	Pipeline fluid only	Closed	12/81	
			25'x 18'x 8'Deep "B"	Unknown	Pipeline fluid only	Closed	12/81	
11	Tompkinsville	KY	15'x 15'x 6'Deep	Unknown	Pipeline fluid only	Closed	9/80	
12	Danville	KY	30'x 30'x 5'Deep	Unknown	Pipeline fluid, some oil	Closed	12/77	
13	Owingsville	KY	15'x 15'x 6'Deep "A"	Unknown	Pipeline fluid, some oil	Closed	6/75	
			15'x 15'x 6'Deep "B"	Unknown	Pipeline fluid, some oil	Closed	6/75	
14	Wheelersburg	OH	20'x 20'x 5'Deep	Unknown	Pipeline fluid only	Closed	12/81	
15	Athens	OH	15'x 15'x 6'Deep	Unknown	Pipeline fluid only	Closed	12/75	
16	Berne	OH	36'x 27'x 10'Deep	Unknown	Pipeline fluid only	Closed	11/78	
17	Lebanon(16)	OH	30'x 30'x 5'Deep	Unknown	Pipeline fluid only	Closed	4/84	
18	Five Points(17)	OH	35'x 60'x 3'Deep	Unknown	Minor amounts of Pipeline fluid only	Closed	12/84	
19	Somerset (18)	OH	35'x 35'x 6'Deep	Unknown	Pipeline fluid only	Closed	9/79	

ATTACHMENT "A"

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT.'85 STATUS	DATE CLOSED	REMARKS
20	Summerfield(19)	OH	12'x 14'x 6'Deep	Unknown	Pipeline fluid only	Closed	12/80	
21	Holbrook	PA	15'Diam x ___'	Unknown	Pipeline fluid only	Closed	12/80	Concrete Lined Pit
			Deep					
22	Uniontown#21-A	PA	20'Diam x ___'	Unknown	Pipeline fluid only	Closed	9/77	
			Deep					
23	Bedford #22A	PA	20'Diam x ____	Unknown	Pipeline fluid only	Closed	9/79*	*No fluids in this pit after 12/73
			Deep					
24	Marietta #24-A	PA	20'Diam x ___'	Unknown	Pipeline fluid only	Closed	11/77	
			Deep					
25	Bechtelsville	PA	20'Diam x ___'	Unknown	Pipeline fluid only	Closed	12/67	
			Deep					
26	Delmont	PA	30'Diam x ___'	Unknown	Pipeline fluid only	Closed	11/72	
			Deep					
27	Armagh	PA	20'Diam x ___'	Unknown	Minor amounts of	Closed	11/82	
			Deep		Pipeline fluid only			
28	Lilly	PA	25'Diam x ___'	Unknown	Pipeline fluid only	Closed	7/77	
			Deep					

ATTACHMENT "A"

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT. '85 STATUS	DATE CLOSED	REMARKS
29	Perulack	PA	20'Diam x ___'	Unknown	Pipeline fluid			
			Deep		from Leidy	Closed	9/78*	*No fluids in this pit after 5/77
30	Leidy	PA	20'Diam x ___'	Unknown	Pipeline fluid	Closed	9/78*	*No fluids in this pit after 5/77
			Deep		Some oil			
31	Shermansdale	PA	20'Diam x ___'	Unknown	Minor amounts of	Closed	3/81	
			Deep		pipeline fluid only			
32	Grantville	PA	20'Diam x ___'	Unknown	Pipeline fluid only	Closed	5/77	
			Deep					
33	Lambertville	NJ.	20'Diam x ___'	Unknown	Pipeline fluid only	Closed	12/72	
	#26		Deep					

PAGE 1 OF 1

ATTACHMENT "B"

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT. '85 STATUS	DATE CLOSED	REMARKS
1	Longview #1	TX	45'Diam x 4'Deep	Unknown	Pipeline fluid, some waste oil	Closed	3/84	
			250'Diam x 10'Deep	Unknown	Pipeline fluid only	Closed	3/84	Only corner of this pit was used
2	Atlanta #2	TX	37'Diam x 4'Deep	Unknown	Pipeline fluid only	Closed	1/80	
3	Hope #3	AR	15'x 50' x4' Deep	Unknown	Pipeline fluid only	Closed	10/83	
4	Donaldson #4	AR	40'Diam x 4'Deep	Unknown	Pipeline fluid only	Closed	6/84	
5	Bald Knob #6	AR	30'Diam x 4'Deep	Unknown	97% P/L fluid, 3% oil	Closed	Fall 1975	
6	10"Line#1-0, M.P.9.81	AR	8'Diam x 3'Deep	-0-	Pipeline fluid only	Closed	10/84	No fluids into pit after 1/71
7	Oran #9	MO	40'Diam x 4'Deep	Unknown	Pipeline fluid only	Closed	5/83	
8	Norris City#11	IL	40'Diam x 4'Deep	Unknown	Pipeline fluid only	Closed	7/75	

PAGE 2 OF 2

ATTACHMENT "B"

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT. '85 STATUS	DATE CLOSED	REMARKS
9	French Lick#13	IN	25'Diam x 4'Deep	Unknown	Pipeline fluid only	Closed	6/84	
10	Batesville#15	IN	15'Diam x 4'Deep	Unknown	Pipeline fluid only	Closed	6/84	

ATTACHMENT "C"

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT. '85 STATUS	DATE CLOSED	REMARKS
1	Blessing	TX	20'Diam x 7' Deep	-0-	Pipeline Fluid	Closed	11/83	Pit last used 10/83
2	Booth	TX	32'Diam x 5' Deep	-0-	Pipeline Fluid	Closed	12/84	Pit last used 1970
3	Charco	TX	52'x 100'x 9' Deep	-0-	Salt Water & Pipeline Fluid	Open	-	*AFE work in progress to close
4	Gillis	TX	23' x 58' x 6' Deep	-0-	Pipeline Fluid	Closed	9/83	Pit last used 9/83
5	Mt. Belvieu	TX	38'Diam x 6' Deep	-0-	Pipeline Fluid	Closed	12/84	Pit last used 1976
6	Thomaston	TX	60'x 150'x 6' Deep	-0-	Pipeline Fluid	Closed	12/84	Pit last used 9 /84
7	Vidor	TX	26'Diam x 6' Deep	-0-	Pipeline Fluid	Closed	9/84	Pit last used 7/84
8	Joaquin	TX	10'x 5'x 5' Deep	-0-	Water from Compressor Room	Open	-	Buried distribution field for compressor room oil/water separator discharge. No PCB in oil.
9	Opelousas	LA	30'Diam x 9' Deep	-0-	Pipeline Fluid	Closed	6/84	Pit last used 12/82
10	Iowa Plant	LA	110'x 160'x 10' Deep	-0-	Pipeline Fluid	Open	-	AFE work in progress to close
11	New Roads	LA	100'x 150'x 8' Deep	-0- **	Pipeline Fluid	Open	-	AFE work in progress to close

ATTACHMENT "C"

PAGE 2 OF 5

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT. '85 STATUS	DATE CLOSED	REMARKS
12	Monroe	LA	30'Diam x 4' Deep	-0-	Pipeline Fluid	Closed	5/83	Pit last used 5/83
			25'x 100'x 4' Deep	-0-	Skimming Pond-Compressor room oil/water separator	Open	-	AFE work in progress to close, no pipeline fluid to pit.
			5'x 5'x 1'Deep	-0-	Shafer Operator Exhaust Pit	Closed	Unknown(old)	
13	Lake Providence	LA	35'Diam x 4' Deep	-0-	Pipeline Fluid	Closed	1/79	Pit last used 9/78
14	Castor	LA	20'Diam x 4' Deep	-0-	Pipeline Fluid	Closed	8/84	Pit last used 1957
15	6" Line 4-A, MP 5.28	LA	40'Diam x 4' Deep	-0-	Not Used	Closed	12/84	No fluids into this pit at any time by TE
16	24"Line #11, MP281.61 W.Side Red River	LA	15'Diam x 3' Deep	-0-	Pipeline Fluid	Closed	1965	No PCB at location during pit usage
17	24"Line #11, MP282.28 E.Side Red River	LA	15'x 15'x 4' Deep	-0-	Not Used	Closed	Fall 1983	Pit not used for waste fluids at any time
18	Greenwood Fld. Compr.8"#1-N-1	LA	20'Diam x 4' Deep	-0-	Pipeline FLuid	Closed	5/83	Pit last used 12/76

PAGE 3 OF 5

ATTACHMENT "C"

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT.'85 STATUS	DATE CLOSED	REMARKS
19	Yazoo City	MS	25'Diam x 4' Deep	-0-	None	Closed	7/84	No waste fluids into this pit at any time
20	Hope #3	AR	15'x 25'x 3' Deep	-0-	Not Used by TE	Open	-	
			15'Diam x 3' Deep	-0-	Pipeline Fluid	Closed	1951	
21	Donaldson #4	AR	40'Diam x 4' Deep	-0-	Pipeline Fluid	Closed	7/66	
22	Walnut Ridge #7	AR	30'x 55'x 3' Deep	-0-	Pipeline Fluid	Closed	1982	Pit last used 1967
23	Oran #9	MO	40'Diam x ___'Deep	-0-	No usage by TE	Closed	Unknown	WEP Pit. Closed during Station construction
24	Lick Creek #10	IL	20'Diam x 4' Deep	-0-	Pipeline Fluid	Closed	6/06/85	Pit not used since November 1962
25	Norris City #11	IL	100'x 75'x ' Deep	-0-	Waste Burning Pit	Closed	Unknown	Pit not used for gas service
			30'Diam x 4' Deep	-0-	Engine cooling water	Closed	6/04/85	Pit not used since 11/73 (one time use)
26	Oakland City #12	IN	25'Diam x 4' Deep	-0-	Pipeline Fluid	Open	-	Pit not used since 10/63, scheduled for closure
27	French Lick #13	IN	40'Diam x 4' Deep	-0-	Engine Cooling,	Closed	10/73	Pit used one time

PAGE 4 OF 5

ATTACHMENT "C"

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT. '85 STATUS	DATE CLOSED	REMARKS
28	Seymour #14	IN	40'Diam x 4' Deep	-0-	Pipeline Fluid	Closed	4/50	
			40'Diam x 4' Deep	-0-	Pipeline Fluid	Closed	12/84	Pit not used since 1970
29	Accident	MD	3@10'ϕ,10'ϕ,& 15'ϕ	-0-	Waste Engine Oil	Closed	12/75	
			10@ various sizes	-0-	Methanol & Salt Water	Open	-	Continued use in negotiation
30	Chambersburg#23	PA	30'x 40'x Deep	-0-	Unknown	Closed	Unknown	Old pit, no records
			30'Diam x Deep	-0-	None	Closed	Nov. 65	Old pit, no records.
31	Eagle #25	PA	55'Diam x Deep	-0-	Fire Fighting Training	Closed	Unknown	
32	Entriken	PA	10'Diam x Deep	-0-	Shafer Oper. Drain Pit	Closed	1965	
33	Marietta #24	PA	20'Diam x Deep	-0-	No Usage by TE	Closed	10/76	
34	Rockwood #22	PA	20'Diam x Deep	-0-	No Usage by TE	Closed	1/85	
35	Uniontown #21	PA	20'Diam x Deep	-0-	No Usage by TE	Closed	12/60	

PAGE 5 OF 5

ATTACHMENT "C"

ITEM	LOCATION	STATE	PIT SIZE	ESTIMATED PCB CONC.	PREDOMINANT USAGE	SEPT. '85 STATUS	DATE CLOSED	REMARKS
36	Wind Ridge #20	PA	30'Diam x '	-0-	Pipeline Fluid	Closed	12/81	Last used 1957
			Deep					
			10'Diam x '	-0-	Pipeline Fluid	Closed	12/80	Last used 1957
			Deep					
37	Linden #27-A	NJ	20'Diam x '	-0-	Pipeline Fluid &	Closed	4/58	Pit closed prior to PCB usage.
			Deep		Waste Engine Oil			

Exhibit AA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

APR - 1 1986

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

F. L. Cohagan
Senior Vice President
Texas Eastern Gas Pipeline Company
P. O. Box 2521
Houston, Texas, 77252

Dear Mr. Cohagan,

This is in response to your November 19, 1985 letter to John S. Seitz concerning Texas Eastern's use of earthen pits for the storage and disposal of pipeline liquids and waste oils. The Agency has reviewed the information you have submitted and sufficient time has elapsed for Texas Eastern to conduct additional sampling as reference in your letter. In order to fully evaluate Texas Eastern's use of earthen pits, including your compliance with PCB storage and disposal requirements, the following information is required.

1. Were pipeline liquids and/or waste oils from any of the 24 turbine locations that used PCB lubricants placed in earthen pits? If so, where, when, and how much?

2. What is the basis for classifying the 11 earthen pits listed in Attachment B of your letter as containing less than 50 ppm PCBs and the 56 earthen pits listed in Attachment C as containing no PCBs?

3. Were pipeline liquids and/or waste oils placed in any earthen pits after 1978? If so, list the dates and pits receiving such waste liquids.

4. Were waste liquids tested for PCBs prior to placement in any earthen pits? If so, list the pits, analytical results, and sampling and analysis dates.

5. When were the oils from Items 3, 4, and 5 in Attachment A of your letter removed from each earthen pit? How was the oil from Items 3, 4, and 5 stored prior to disposal? When and where were the oils from Items 3, 4, and 5 incinerated?

6. When and why were the sludges in Items 3, 4, and 5 in Attachment A of your letter backfilled?

7. Attachments A, B, and C of your letter list the September 1985 status of 87 pits as "closed". What does the term "closed" mean?

8. When were the 48 earthen pits listed in Attachments A and B of your letter backfilled? Specific dates, if known.

9. Have any of the earthen pits listed in Attachment C of your letter been backfilled? Specific dates, if known.

10. What is the status of the earthen pits pilot sampling program?

11. What action has Texas Eastern undertaken to determine if surface or groundwater sources may be threatened and/or contaminated from the disposal of waste liquids at earthen pit locations?

12. How many underground steel or concrete tanks have been found to contain PCBs? Where are they located? Explain decontamination disposal procedures.

The PCB Regulations require that when PCBs and PCB Items are removed from service and disposed of, disposal must be undertaken in accordance with Subpart D (40 CFR Parts 761.60 and 761.65). The "Note" preceding Subpart D states that PCBs and PCB Items landfilled prior to February 17, 1978 are considered "inservice" and are not required to be removed for the purposes of disposal. However, if such PCBs and PCB Items are removed from the disposal site, they must be disposed of in accordance with Subpart D.

Please submit a written response to the above twelve questions by April 30, 1986. If you have any questions regarding this matter please contact Michael Calhoun at (202)-382-7835.

Sincerely yours,

John J. Neylan III, Director
Compliance Division

– Exhibit BB

TEXAS EASTERN
Gas Pipeline Company
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

H. D. CHURCH
SENIOR VICE PRESIDENT
ENGINEERING & OPERATIONS

April 25, 1986

Mr. John J. Neylan III, Director
Compliance Division
Office of Pesticides and Toxic Substances
United States Environmental Protection Agency
401 M Street SW
Washington, D.C. 20460

Re: Your April 1, 1986 letter to F. L. Cohagan

Dear Mr. Neylan:

This is in response to the referenced letter requesting additional information concerning Texas Eastern Gas Pipeline Company's use of earthen pits. We are also taking this opportunity to update EPA regarding the status of our environmental investigation of these earthen pits.

As was noted in our letter to John S. Seitz dated November 19, 1985, the engineering consulting firm of Roy F. Weston, Inc. (Weston) has been retained by Texas Eastern to develop and conduct a sampling program for Texas Eastern's earthen pits. A pilot sampling program by Weston has been recently completed. This pilot program consisted of investigative activities at eight compressor station sites. The selected sites represent an operational and geological cross-section of Texas Eastern's system. The investigation included the collection and analysis of water and sediment samples and soil borings. Water samples were obtained from nearby surface waters and sediment samples were obtained from drainage swales at each site. Soil borings were taken within or immediately adjacent to the earthen pit areas. A copy of the April 21, 1986 Weston report on the pilot program is enclosed for your review and consideration.

In responding to the specific questions raised in your letter, we believe it would be helpful to clarify certain terms. The term "pipeline liquids" refers to condensates and distillates present in the pipeline which are drained from the pipeline by means of scrubbers or incoming pig runs. Pipeline liquids also contain lubricating oil that leaked from turbine-driven compressor seals into the pipeline. Texas Eastern has concluded that the PCB contamination of pipeline liquids was the result of the leaks of PCB-based lubricating oil from the seals into the pipeline. The term "waste oil" refers to the small quantities of lubricating oil that from time to time leaked or seeped from the external turbine/compressor unit casings and fittings. The term "waste oil" should be contrasted with "used oil"; "used oil" refers to the bulk amounts of lubricating oil intentionally removed from turbine/compressor units and replaced by new oil.

1. **Were pipeline liquids and/or waste oils from any of the 24 turbine locations that used PCB lubricants placed in earthen pits? If so, where, when, and how much?**

   Pipeline liquids and waste oils were placed in earthen pits at the 19 sites where the 24 turbines were located. Texas Eastern has no records regarding the actual dates or actual quantities placed into these earthen pits. Used oils from the 24 turbine locations were not placed in earthen pits.

2. **What is the basis for classifying the 11 earthen pits listed in Attachment B of your letter as containing less than 50 ppm PCBs and the 56 earthen pits listed in Attachment C as containing no PCBs?**

   Texas Eastern's classification of earthen pits listed on Attachments A, B, and C of our November 19, 1985 letter is based not upon actual or estimated concentrations of PCB found in the earthen pits, but rather is based upon the concentration of PCB found in the pipeline liquids in the pipeline segments associated with the earthen pits.

3. **Were pipeline liquids and/or waste oils placed in any earthen pits after 1978? If so, list the dates and pits receiving such waste liquids.**

   Pipeline liquids and waste oils were placed in earthen pits before and after 1978. Attachment D to this letter lists the pits receiving pipeline liquids and waste oils and the dates the pits last received pipeline liquids and waste oils. Attachment D is a composite listing of all pits listed on Attachments A, B, and C.

4. **Were waste liquids tested for PCBs prior to placement in any earthen pits? If so, list the pits, analytical results, sampling and analysis dates.**

   Pipeline liquids were not known to be contaminated with PCBs prior to 1981, and therefore, no PCB analyses were run previous to that time. After discovery of the potential for the presence of PCBs in the pipeline liquids, an ongoing program of tank installation and related earthen pit retirement was accelerated. This tank installation program has been completed. As tanks were installed, Texas Eastern discontinued use of the earthen pits. Where tankage existed or upon the installation of such tankage, pipeline liquids were tested for PCBs prior to their removal and subsequent disposal. The subsequent handling and disposal of liquids removed from tankage was based upon the PCB levels detected. No analyses for PCBs were run on pipeline liquids being placed in earthen pits.

5. **When were the oils from Items 3, 4, and 5 in Attachment A of your letter removed from each earthen pit? How was the oil from Items 3, 4, and 5 stored prior to disposal? When and where were the oils from Items 3, 4, and 5 incinerated?**

The term "oils" referenced in this question and as used on Attachment A of our November 19, 1985 letter is hereby clarified to be "pipeline liquids." Pipeline liquids from locations #3, #4, and #5 of Attachment A were removed from each earthen pit as follows:

Item #3	St. Francisville	Pipeline liquids removed September, 1982
Item #4	Union Church	Pipeline liquids removed August, 1984
Item #5	Clinton	Pipeline liquids removed August, 1984

Pipeline liquids from these locations were stored prior to disposal as follows:

Item #3	St. Francisville	Pipeline liquids were removed from the earthen pit and transported on September 28, 1982 to Chemical Waste Management Inc. (CWM) facility in Emelle, Alabama for storage before incineration.
Item #4	Union Church	Pipeline liquids were removed from the earthen pit and stored in above-ground steel tanks on site.
Item #5	Clinton	Pipeline liquids were removed from the earthen pit and transported immediately to above-ground steel tanks at Union Church Compressor Station, Mississippi.

Pipeline liquids from these locations were incinerated as follows:

Item #3	St. Francisville	Texas Eastern has no documentation of incineration of liquids transported to CWM, Emelle, Alabama.
Item #4	Union Church	Pipeline liquids were transported to SCA Chemical Services, Inc. in Chicago, Illinois on December 27, 1984 and incinerated on January 15-16, 1985.
Item #5	Clinton	Pipeline liquids were transported and incinerated along with the liquids from Union Church.

6. **When and why were the sludges in Items 3, 4, and 5 in Attachment A of your letter backfilled?**

   The cleanup of the pits on Attachment A, Items #3, #4, and #5 was a part of Texas Eastern's initial system cleanup program associated with phase out of PCB lubricants from the turbine/compressor units. Removal of the pit liquids was a first stage undertaken to eliminate liquid head, thus reducing subsurface migration potential. Fly-ash was added to the remaining sludge for solidification and covered with an impermeable membrane liner to prevent percolation of rainwater; the pits were backfilled to prevent ponding. Backfilling of the pits in question occurred as follows:

Item #3	St. Francisville	August 1984
Item #4	Union Church	September 1984
Item #5	Clinton	September 1984

7. **Attachments A, B, and C of your letter list the September 1985 status of 87 pits as "closed". What does the term "closed" mean?**

   The term "closed" in Attachments A, B, and C refers to the date the pits were actually backfilled and may or may not be the same as the out-of-service date. The earthen pits may in fact have been taken out-of-service prior to the "closed" date.

8. **When were the 48 earthen pits listed in Attachments A and B of your letter backfilled? Specific dates, if known.**

   The forty-eight (48) earthen pits listed on Attachments A and B identified as "closed" were backfilled on the dates shown in the "date closed" column of the November 19, 1985 Attachments A and B.

9. **Have any of the earthen pits listed in Attachment C of your letter been backfilled? Specific dates, if known.**

   The earthen pits listed on Attachment C identified as "closed" were backfilled on the dates shown in the "date closed" column of the November 19, 1985 Attachment C. Since November 19, 1985, additional data was compiled which indicated the following pits to be "closed":

   Attachment C, Item #10 - Iowa Plant - closed 10/85
   Attachment C, Item #11 - New Roads - closed 3/86
   Attachment C, Item #12(b) - Monroe - (25' x 100' x 4') - closed 4/85
   Attachment C, Item #26 - Oakland City, Station 12 - closed 1/86

10. **What is the status of the earthen pits pilot sampling program?**

    The pilot sampling program is complete. See discussion above and the attached report.

11. **What action has Texas Eastern undertaken to determine if surface or groundwater sources may be threatened and/or contaminated from the disposal of waste liquids at earthen pit locations?**

    Although groundwater was not sampled during the pilot study, the soil boring results indicate that PCBs do not appear to be migrating either vertically or horizontally from the pit areas. Groundwater was not encountered in any of the soil borings made during the pilot study program.

    Interim remedial actions were initiated by Texas Eastern the week of April 14, 1986 to reduce potential for off-site migration of contaminated sediment. Silt fencing, a sedimentation control material, has been installed at compressor station sites showing the presence of PCB in surface drainage swales to prevent migration of contaminated sediment to surface water bodies.

12. **How many underground steel or concrete tanks have been found to contain PCBs? Where are they located? Explain decontamination disposal procedures.**

    One 31' x 6' x 9' concrete sump at Texas Eastern's Oran Compressor Station in Missouri was found to contain 197 ppm PCB contaminated liquids and 400 ppm PCB contaminated sludges. The liquids were removed from the sump for off-site incineration in 1985. Also in 1985, the sludges were removed from the sump and solidified. These solidified sludges are scheduled for disposal. The sump was decontaminated by steamcleaning and rinsing with diesel fuel. A sample of the rinse fluid was analyzed for PCBs and found to be less than 2 ppm. This sump was closed by backfilling in October, 1985. The area was graded and reseeded after backfilling.

    One 6' diameter x 12' underground steel tank of Texas Eastern's Bald Knob Compressor Station in Arkansas was found to contain approximately 90 ppm PCB contaminated liquids. These liquids were removed and placed into an on site above-ground storage tank. These liquids were transported to SCA Chemical Services in Chicago, Illinois on January 16, 1985 for incineration. The sump was filled in with sand in June, 1985.

    One 30" diameter x 20' underground steel tank at Texas Eastern's Hanover Compressor Station in New Jersey was found to contain approximately 4392 ppm PCB pipeline liquids. This is an active tank for PCB liquid removal from the pipeline system. These liquids are removed periodically from this tank. The liquids were last removed in September, 1985 and transported to SCA Chemical Services in Chicago, Illinois for incineration.

I look forward to meeting with you on April 30, 1986. We will be prepared to discuss with you the future environmental actions which we propose to take with regard to the earthen pit locations, and will, of course, appreciate your reaction to our plans.

Sincerely yours,

H. D. Church

H. D. Church

ATTACHMENT "D"

PAGE 1 OF 10

ITEM	LOCATION	STATE	PIT SIZE	DATE LAST P/L FLUID INTO PIT	DATE LAST WASTE OIL INTO PIT	REMARKS
Note: Following Items Refer to Items on Attachment "A", November 19, 1985						
1	Joaquin	TX	40'Diam x 4' Deep	10/81	7/82	
2	LaRose	LA	40' x 100' x 8' Deep	1/10/66	N/A	
3	St. Francis-	LA	100'x150'x17' Deep	9/6/83	N/A	
	ville					
			20'Diam x 10'	12/69	N/A	
4	Union Church	MS	51'Diam x 5' Deep	10/28/83	N/A	
			80'Diam x 8' Deep	10/28/83	N/A	
5	Clinton	MS	70'Diam x 7'Deep	12/16/83	N/A	
6	Kosciusko	MS	35' x 35' x 5'Deep	6/14/79	N/A	
7	Egypt	MS	17' x 18' x 6'Deep	1/31/81	N/A	
8	Barton	AL	55' x 55' x 18'Deep	12/30/81	N/A	

ATTACHMENT "D"

PAGE 2 OF 10

ITEM	LOCATION	STATE	PIT SIZE	DATE LAST P/L FLUID INTO PIT	DATE LAST WASTE OIL INTO PIT	REMARKS
9	Mt. Pleasant	TN	16' x 16' x 6'Deep	4/7/78	N/A	
10	Gladeville	TN	55' x 48' x 4'Deep	12/29/81	N/A	
			25' x 18' x 8'Deep	12/29/81	N/A	
11	Tompkinsville	KY	15' x 15' x 6'Deep	9/30/80	N/A	
12	Danville	KY	30' x 30' x 5'Deep	12/19/77	N/A	
13	Owingsville	KY	15' x 15' x 6'Deep	6/13/75	N/A	
			15' x 15' x 6'Deep	6/13/75	N/A	
14	Wheelersburg	OH	20' x 20' x 5'Deep	12/1/81	N/A	
15	Athens	OH	15' x 15' x 6'Deep	12/19/75	N/A	
16	Berne	OH	36' x 27' x 10'Deep	11/30/78	N/A	
17	Lebanon (16)	OH	30' x 30' x 5'Deep	3/84	N/A	

ATTACHMENT "D"

PAGE 3 OF 10

ITEM	LOCATION	STATE	PIT SIZE	DATE LAST P/L FLUID INTO PIT	DATE LAST WASTE OIL INTO PIT	REMARKS
18	Five Points(17)	OH	35' x 60' x 3'Deep	6/82	N/A	
19	Somerset (18)	OH	35' x 35' x 6'Deep	9/4/79	N/A	
20	Summerfield(19)	OH	12' x 14' x 6'Deep	12/10/80	N/A	
21	Holbrook	PA	15'Diam x 'Deep	11/74	N/A	
22	Uniontown#21-A	PA	20'Diam x ____'Deep	9/13/77	N/A	
23	Bedford #22A	PA	20'Diam x ____'Deep	12/75	N/A	
24	Marietta #24-A	PA	20'Diam x ____'Deep	11/77	N/A	
25	Bechtelsville	PA	20'Diam x ____'Deep	11/67	N/A	
26	Delmont	PA	30'Diam x ____'Deep	11/72	N/A	
27	Armagh	PA	20'Diam x ____'Deep	10/82	N/A	

ATTACHMENT "D"

PAGE 4 OF 10

ITEM	LOCATION	STATE	PIT SIZE	DATE LAST P/L FLUID INTO PIT	DATE LAST WASTE OIL INTO PIT	REMARKS
28	Lilly	PA	25'Diam x ___'Deep	6/77	N/A	
29	Perulack	PA	20'Diam x ___'Deep	5/77	N/A	
30	Leidy	PA	20'Diam x ___'Deep	5/77	5/77	
31	Shermansdale	PA	20'Diam x ___'Deep	3/20/81	N/A	
32	Grantville	PA	20'Diam x ___'Deep	4/77	N/A	
33	Lambertville#26	NJ	20'Diam x ___'Deep	9/72	N/A	
Note:	Following Items Refer to Items on Attachment "B", November 19, 1985					
1	Longview #1	TX	45'Diam x 4'Deep	3/84	3/84	
			250'Diam x 10'Deep	6/82	N/A	
2	Atlanta #2	TX	37'Diam x 4'Deep	8/78	N/A	
3	Hope #3	AR	15' x 50' x 4'Deep	10/83	N/A	

ATTACHMENT "D"

PAGE 5 OF 10

ITEM	LOCATION	STATE	PIT SIZE	DATE LAST P/L FLUID INTO PIT	DATE LAST WASTE OIL INTO PIT	REMARKS
4	Donaldson #4	AR	40'Diam x 4'Deep	5/84	N/A	
5	Bald Knob #6	AR	30'Diam x 4'Deep	Fall 1975	Fall 1975	
6	10"Line #1-0, M.P. 9-81	AR	3'Diam x 3'Deep	1/71	N/A	
7	Oran #9	MO	40'Diam x 4'Deep	3/83	N/A	
8	Norris City#11	IL	40'Diam x 4'Deep	7/75	N/A	
9	French Lick#13	IN	25'Diam x 4'Deep	1978	N/A	
10	Batesville #15	IN	15'Diam x 4'Deep	11/83	N/A	
Note:	Following Items Refer to Items on Attachment "C", November 19, 1985					
1	Blessing	TX	20'Diam x 7'Deep	10/26/83	N/A	
2	Booth	TX	32'Diam x 5'Deep	1970	N/A	

ATTACHMENT "D"

ITEM	LOCATION	STATE	PIT SIZE	DATE LAST P/L FLUID INTO PIT	DATE LAST WASTE OIL INTO PIT	REMARKS
3	Charco	TX	52' x 100' x 9'Deep	10/30/85	N/A	Pit in use for salt water.
4	Gillis	TX	23' x 58' x 6'Deep	9/9/83	N/A	
5	Mt. Belvieu	TX	38'Diam x 6'Deep	1976	N/A	
6	Thomaston	TX	60' x 150' x 6'Deep	9/7/84	N/A	
7	Vidor	TX	26'Diam x 6'Deep	7/10/84	N/A	
8	Joaquin	TX	10' x 5' x 5'Deep	None	N/A	Distribution field for water from water/oil separator.
9	Opelousas	LA	30'Diam x 9'Deep	12/7/82	N/A	
10	Iowa Plant	LA	110'x160'x10'Deep	9/27/85	N/A	
11	New Roads	LA	100'x150'x8'Deep	1/84	N/A	
12	Monroe	LA	30'Diam x 4'Deep	5/83	N/A	
			(Continued)			

ATTACHMENT "D"

PAGE 7 OF 10

ITEM	LOCATION	STATE	PIT SIZE	DATE LAST P/L FLUID INTO PIT	DATE LAST WASTE OIL INTO PIT	REMARKS
(12)	(Monroe)	(LA)	25' x 100' x 4'Deep	N/A	4/85	
			5' x 5' x 1'Deep	N/A	Unknown	Old exhaust pit for valve operator.
13	Lake Providence	LA	35'Diam x 4'Deep	9/78	N/A	
14	Castor	LA	20'Diam x 4'Deep	1957	Unknown	No use of any type after 1957.
15	6" Line 4-A, MP 5.28	LA	40'Diam x 4'Deep	N/A	N/A	Old pit by others, not used by TE.
16	24"Line #11, MP281.61W.Side Red River	LA	15'Diam x 3'Deep	1965 ±	N/A	
17	24"Line #11, MP 282.28E.Side Red River	LA	15' x 15' x 4'Deep	N/A	N/A	Pit not used at any time.

ATTACHMENT "D"

PAGE 8 OF 10

ITEM	LOCATION	STATE	PIT SIZE	DATE LAST P/L FLUID INTO PIT	DATE LAST WASTE OIL INTO PIT	REMARKS
18	Greenwood Fld.	LA	20'Diam x 4'Deep	12/76	N/A	
	Compr.8"#1-N-1					
19	Yazoo City	MS	25'Diam x 4'Deep	N/A	N/A	Pit not used at any time.
20	Hope #3	AR	15' x 25' x 3'Deep	N/A	N/A	Pit not used at any time.
			15'Diam x 3'Deep	1951	N/A	
21	Donaldson #4	AR	40'Diam x 4'Deep	7/66	N/A	
22	Walnut Ridge#7	AR	30' x 55' x 3'Deep	1967 ±	N/A	
23	Oran #9	MO	±40'Diam x 'Deep	N/A	N/A	Pit used only by War Emergency Pipeline.
24	Lick Creek #10	IL	20'Diam x 4'Deep	11/62	N/A	
25	Norris City#11	IL	100'x 75' x 'Deep	N/A	N/A	Pit used only by War Emergency Pipeline
			30'Diam x 4'Deep	N/A	N/A	Used in 1973 for cooling water.

ATTACHMENT "D"

PAGE 9 OF 10

ITEM	LOCATION	STATE	PIT SIZE	DATE LAST P/L FLUID INTO PIT	DATE LAST WASTE OIL INTO PIT	REMARKS
26	OaklandCity#12	IN	25'Diam x 4'Deep	10/63	N/A	
27	French Lick#13	IN	40'Diam x 4'Deep	N/A	N/A	Used in 1973 for cooling water.
28	Seymour #14	IN	40'Diam x 4'Deep	4/50	N/A	
			40'Diam x 4'Deep	1970	N/A	
29	Accident	MD	3@10'Diam,10'Diam,	12/75	12/75	
			& 15'Diam			
			10@ various sizes	Active (3) 11/84 (7)	N/A	Methanol & salt water usage.
30	Chambersburg#2	PA	30' x 40' x 'Dee	Unknown	Unknown	Old pit, no records of any fluids.
			30'Diam x 'Deep	Unknown	Unknown	Old pit, no records of any fluids.
31	Eagle #25	PA	55'Diam x 'Deep	Unknown	Unknown	Old pit, no records of any fluids
32	Entriken	PA	10'Diam x 'Deep	N/A	Before 1965	Some operator oil may have reached pit.
33	Marietta #24	PA	20'Diam x 'Deep	Unknown	Unknown	Old pit, no records of any fluids.

ATTACHMENT "D"

PAGE 10 OF 10

ITEM	LOCATION	STATE	PIT SIZE	DATE LAST P/L FLUID INTO PIT	DATE LAST WASTE OIL INTO PIT	REMARKS
34	Rockwood #22	PA	20'Diam x ___'Deep	Unknown	Unknown	Old pit, no records of any fluids.
35	Uniontown #21	PA	20'Diam x ___'Deep	Unknown	Unknown	Old pit, no records of any fluids.
36	Wind Ridge #20	PA	30'Diam x ___'Deep	1957	Unknown	No use after 1957.
			10'Diam x ___'Deep	1957	Unknown	No use after 1957.
37	Linden #27-A	NJ	20'Diam x ___'Deep	1958	1958	

Exhibit CC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C 20460

OFFICE OF ENFORCEMENT

JAN 22 1981

MEMORANDUM

SUBJECT: PCB Incident - Region II

TO: Regional Administrators - Regions I - X

FROM: Jeffrey G. Miller
for Acting Assistant Administrator
for Enforcement

The local utilities in Region II have detected PCBs in natural gas distribution pipelines.

Major interstate pipeline companies and local utilities are cooperating with Region II in determining the source and extent of the PCB contamination.

A Task Force has been established to address the problem and coordinate any national effort which may be needed. The Task Force contact from the Pesticides and Toxic Substances Enforcement Division is John Seitz, Chief, Compliance Monitoring Branch. Please designate a contact person in your region in the event this incident becomes multi-regional. Notify John of your designated contact at 755-0914. Should you have any questions, please don't hesitate to call.

The Regions will be notified of further developments as they occur.

- Exhibit DD

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:

5AHTS

February 6, 1981

Texas Eastern Pipeline Company
Attention: I. David Bufkin, President
P. O. Box 2521
Houston, TX 77001

Gentlemen:

This letter is being sent to natural gas companies throughout the Midwest Region to give notice of the potential contamination of gas transmission systems in this area with polychlorinated biphenyls (PCB), a toxic environmental pollutant.

Recent sampling by this Agency has discovered PCB contamination of the condensate and oil that collects at various points in gas transmission systems. Such condensate and oil would be expected to collect at points of pressure change in the system, such as gate stations and compressor stations. Our sampling has also found PCB contamination of condensate and oil that has been collected during the servicing of gas meters and the blowing out of transmission lines.

The sampling done in the Chicago area has discovered PCB contamination at levels between 50 and 500 parts per million. This level of PCB contamination brings the condensate and oil of concern under the stringent handling and disposal requirements of the Polychlorinated Biphenyl Regulations issued under the Toxic Substances Control Act. (See 40 CFR Part 761.) If any of the condensate and oil that collects in, or is cleaned from, your gas transmission system contains greater than 50 parts per million PCB, your company is required by law to follow strict procedures in storing, labeling, and disposing of this material, and in keeping records on its disposition.

I am writing you at this time to notify you that your system may be subject to the same PCB contamination as the systems we have sampled, and to seek your cooperation in assuring that any PCB contaminated condensate or oil that may exist in your system is handled in a manner that is in full compliance with the safeguards required by the Polychlorinated Biphenyl Regulations. Please be aware, however, that your compliance with these regulations is mandatory, and violations may lead to penalties of up to $25,000 per day per violation. This Agency will be performing spot checks in the near future to assure that compliance has been achieved.

To assist you in fulfilling your obligations in handling any PCB contaminated materials, I am enclosing a recent listing of landfills approved for disposal of materials containing between 50 and 500 parts per million of PCB. Materials contaminated with greater than 500 parts per million of PCB must meet more rigid disposal requirements. An incinerator has been approved for disposal of these materials at Rollins Environmental Services, Deer Park, Texas. You should note also that materials contaminated with PCB at levels less than 50 parts per million may also be subjected to controls under a recent decision of the United States Court of Appeals for the District of Columbia (E.D.F. v. EPA, Docket No. 79-1580, October 30, 1980).

For more information on this matter, please contact our Toxic Substances Office at (312) 353-2291.

Sincerely yours,

David Kee

David Kee, Director
Air and Hazardous Materials Division

Enclosure

CHEMICAL WASTE LANDFILLS APPROVED FOR PCB DISPOSAL

FACILITY NO.	SITE LOCATION	FACILITY	FACILITY ADDRESS	EPA REG. CONTRACT	CAPACITORS (LARGE & SMALL)	PROPERLY DRAINED TRANSFORMERS	CONTAMINATED SOIL, DIRT, RAGS & OTHER DEBRIS	DREDGE SPOILS	MUNICIPAL SLUDGES	PROPERLY DRAINED CONTAINERS	ASPHALT (CONTAMINATED)	LIQUID PCBs AT A CONCENTRATION BETWEEN 50 & 500 ppm
3	ALABAMA	WASTE MGMT. OF ALABAMA (205) 652-9531 TOLL FREE NO. (800) 241-7829	P.O. BOX 1200 LIVINGSTON AL 35470	MR. JAMES SCARBROUGH (404) 881-3016	X	X	X	X	X	X		X
6	CALIFORNIA	CASMALIA DISPOSAL (805) 937-8457	539 YBIDRO ROAD P.O. BOX 5275 SANTA BARBARA CA. 93108	RAYMOND SEID (415) 556-3489	X	X	X	X	X	X		
8	GRAND VIEW, IDAHO	WES-CON, INC. (208) 834-2275	P.O. BOX 564 TWIN FALLS ID 83301	ROGER FUENTES (206) 442-2959	X	X	X			X	X	X
6	BEATTY, NV	NUCLEAR ENGINEERING CO., INC. (502) 426-7160	9200 SHELBYVILLE RD. SUITE 526 P.O. BOX 7246 LOUISVILLE KY 40207	RAYMOND SEID (415) 556-3489	X	X	X	X	X	X		
1	NEW YORK	CECOS INTERNATIONAL (716) 731-3281	4528 ROYAL AVE. NIAGARA FALLS NY 14303	WAYNE PIERRE (212) 264-0505	X	X	X	X	X	X		
2	NEW YORK	SCA CHEMICAL SERV., INC. (716) 754-8231	1550 BALMER ROAD MODEL CITY NY 14107	WAYNE PIERRE (212) 264-0505	X	X	X	X	X	X		
4	OHIO	CECOS INTERNATIONAL (513) 724-6114	5092 ABER RD. WILLIAMSBURG OH 45176	JAY GOLDSTEIN (312) 353-2197	X	X	X	X	X	X		X
7	OREGON	CHEM-NUCLEAR SYS. INC. (503) 223-1912	P.O. BOX 1268 PORTLAND OR 97205	ROGER FUENTES (206) 442-2959	X	X	X			X	X	X

Exhibit EE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

FEB 26 1981

OFFICE OF ENFORCEMENT

MEMORANDUM

SUBJECT: Natural Gas Sampling Program

TO: Regional Administrators, Regions I - X

FROM: Jeffrey G. Miller
Acting Assistant Administrator
for Enforcement

On January 22, 1981, the attached memorandum was issued concerning the detection of PCBs in natural gas pipelines. At that time, you were asked to designate a contact point to coordinate any monitoring activities in your region.

The attached strategy, which was mailed to regional division directors on February 4th, has been designed to determine the extent and possible source of PCB contamination of natural gas lines. The overall strategy includes: a national sampling program for condensate sampling by interstate transmission companies; a program for sampling of condensate, gas and air (if necessary) by local utilities; and a regional program for inspecting gas pipeline compressors. Data from this effort will provide the Agency with information needed to assess the potential for human exposure.

Recognizing limited agency resources, this program relies heavily on the cooperation of both gas utilities and interstate pipeline companies for sampling and analysis of various media. While we have been able to design the program to have minimal impact on regional resources, at the present time agency resources are needed to accomplish the following tasks:

- Contacting representatives of local utilities;
- Working with these utilities to design a coordinated sampling/analytical program and ensure that sampling is underway; and
- Conducting inspections of gas pipeline compressors.

While we recognize that there are resource constraints, this cooperative program should receive your full support.

Attachments

– Exhibit FF

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MEMORANDUM

MAY 27 1981

OFFICE OF ENFORCEMENT

SUBJECT: Natural Gas Pipelines Situation: Remedial Measures for Distribution Systems

TO: Enforcement Division Directors
Air and Hazardous Materials Division Directors
Surveillance and Analysis Division Directors

Since the discovery of PCBs in natural gas transmission and distribution lines, the Environmental Protection Agency (EPA), together with other Federal and local government agencies, has been seeking to work cooperatively with the natural gas companies to assess the scope of the problem. A national testing program, complete with quality assurance testing, has been established. Tests on transmission lines will be completed shortly. Although the testing program for the distribution companies has not progressed as far, we do have an initial estimate of the scope of the problem in some systems. Similar information should be forthcoming soon on the remaining systems.

In light of the progress made in the initial phase of this cooperative program, it is necessary to establish guidelines for the next phase of the program. The Pesticides and Toxic Substances Enforcement Division (PTSED), in cooperation with the Office of General Counsel (OGC) and the Office of Pesticides and Toxic Substances (OPTS), has prepared a program for addressing the PCB problem in the interstate transmission lines. A copy of a sample letter from PTSED to the transmission companies is attached for your information. The purpose of the attached remedial strategy is to establish guidelines for the Regions to use in carrying out the cooperative program with the distribution companies. The attached guidelines are meant to be flexible. We remain willing to discuss them with you and the utilities. Please keep us fully informed of your progress in this matter. If you have any questions, please do not hesitate to contact John Seitz of my staff at 472-3701.

A. E. Conroy II

A. E. Conroy II, Director
Pesticides and Toxic Substances
Enforcement Division

Attachments

PCBs IN NATURAL GAS PIPELINES:
REMEDIAL MEASURES STRATEGY

The Environmental Protection Agency has established a cooperative program with the natural gas distribution companies aimed at determining the scope of the PCB contamination problem in natural gas pipelines. The purpose of this document is to establish guidelines for the continuance of this cooperative program.

The direction of the cooperative program at this point necessarily depends on what is known about the extent of PCB contamination in a particular system. In some instances, it is now known that PCB liquids have reached as far as the pipes leading into customers' homes. In other systems, it is known that there is PCB contamination, but there is no evidence of the PCB liquids reaching people's homes. Each of these situations demands different priorities.

To help identify what steps are appropriate for a given utility, ana to help quantify the progress of the program, PTSED has divided this effort into three phases. The phases are not mutually exclusive and any utility may be conducting several activities in different phases at the same time. Appearing below is a description of the three phases and the measures that should be instituted by each utility in each phase of the program.

Phase I

The goal of the first phase of the program is to obtain a general picture of the scope and location of the PCB contamination problem. The sampling program now in progress is the bulk of the Phase I effort. The Regions should use their best efforts to get all natural gas distributors involved in the sampling program. At a minimum, the following distribution companies must participate:

1) Any utility company with compressors, or any other equipment that could be the source of PCBs.

2) Any utility that has fogged its system in the past.

3) Any utility company supplied by a transmission line contaminated with PCBs.

4) Any utility servicing a substantial population, e.g., utilities serving portions of large cities, utilities serving medium-sized cities, or utilities serving several rural counties.

Any utility not participating should submit a letter to EPA explaining why it is not participating, specifically stating that no equipment on line could be a current source of PCBs and no practice using PCBs, such as fogging, was conducted by the utility in the past.

At the completion of the sampling program, each participating utility must submit a written report to the Region. The report should contain:

1) The results of the sampling program;

2) An estimate of the length of pipe contaminated;

3) An estimate of the number of customers served by the contaminated pipe;

4) An estimate of the amount of condensate in the system; and

5) A description of the possible sources of PCBs, including equipment and past practices.

These reports should be submitted to the Region as soon as possible after the completion of the testing program.

In some cases, it is already known that PCBs are present in the gas lines. If PCB condensate is being removed from such systems the utility must submit a written report describing its plans for handling the PCB liquids. The report should contain the following information:

1) A description of the locations from which the liquids are being removed;

2) A description of the measures being taken to protect both workers and customers during such removal; and

3) A plan for handling, marking, storing and disposing of the PCBs in accordance with TSCA, and applicable Department of Transportation regulations. It should be noted that the non-PCB portion of the condensate is usually flammable and may be extremely volatile.

Phase II

The goal of the second phase of the program is to determine more accurately the extent of the problem for each utility, what health risks, if any, are posed by the PCB contamination, what methods are available for cleanup, and the costs and benefits of each method. This information will enable the Agency to determine what cleanup, if any, is required and whether any amendments to the PCB Ban Rule are necessary. To reach these goals, it will be necessary for the distribution companies to develop and submit to EPA detailed information about each individual case of PCB contamination. Specifically, the following steps should be followed with each company having a PCB problem:

1) Each utility with PCB contamination must submit a written sampling plan to the Regions. The plan must be designed to provide accurate information on the length and location of pipe contaminated, the amount of contaminated condensate and its PCB concentration, and the sources of the contamination. Some companies may have already accomplished this.

2) As soon as the sources of PCB contamination are identified, a plan for abating those sources as quickly as possible must be submitted to the Region. Consult Headquarters if the source is located at or near a connection point with another system.

3) As soon as detailed information on the extent of the problem is available, the utility must identify all possible methods for removing the PCBs from its system. The best possible estimate of the cost, effectiveness, and amount of time necessary for each method must be obtained. If desired, the company may include estimates of how long it would take the system to purge itself of PCBs under normal operating conditions. This information must be submitted to the Region as quickly as possible after it is collected. Regional contacts for the national sampling program should review and summarize this data and submit the summary to Headquarters. A format for the summary will be sent to you in the near future.

4) As soon as exact information about the scope of the PCB contamination is available, the Region should consult with Headquarters to determine which utilities should institute a gas and ambient air sampling program. Such programs will be required of some utilities to determine accurately the health risks posed by the contamination. Headquarters will coordinate this effort so that only one program will be necessary for utilities with similar contamination problems and similar operating conditions. Those utilities asked to submit gas and ambient air sampling programs will be required to ensure a large enough sample to guarantee statistically significant results and to distinguish between contamination resulting from PCB presence in the pipeline and PCBs from other sources (e.g. background levels, electrical fixtures, etc.).

Phase III

The goal of the third phase of the program is to eliminate any health risk from the PCB contamination as quickly as possible. The remedial actions that will be required cannot be fully developed until the data gathering is complete. The approach will be that Headquarters will establish criteria for reducing or eliminating the PCB contamination, based on the potential for exposure stemming from the various ranges of PCB contamination. Without the data generated from the second phase, EPA is unable to make the correlation between the amount in the pipelines and potential for exposure. In addition, the estimates of volumes of PCB material and the availability and cost of cleanup technology are needed to determine the feasibility and desirabiltiy of cleanup in both individual situations and nationally.

In some cases, it may be decided that no cleanup is necessary. If any PCB exposure is found to be occurring above background levels, however, the Agency can require immediate action to remove the hazard, including extensive measures, if necessary.

After Headquarters establishes criteria for cleanup, each affected company will submit a technical proposal indicating how the company intends to meet those criteria. The technical proposal will address, at a minimum:

1) A timetable for cleanup;

2) A description of the cleanup measures to be used;

3) A monitoring program to assure that no further PCB contamination occurs and that levels in natural gas and ambient air in homes do not present new hazards;

4) Measures to assure the safety of workers and customers; and

5) Methods for handling, storing, and disposing of the PCBs in accordance with the law.

The proposal will be reviewed by the Region, with Headquarters assistance, if necessary. After the Region and the utility reach an agreement about necessary remedial measures, that agreement should be submitted to Headquarters to assure national consistency. The plan will then be implemented as quickly as possible with EPA systematic oversight.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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MAY 27 1981

OFFICE OF ENFORCEMENT

General Counsel
Natural Gas Transmission Company

Dear

Early this year, it was discovered that polychlorinated biphenyls (PCBs) were present in the condensate in some natural gas pipelines. Since that time, the Environmental Protection Agency (EPA), together with other Federal agencies, has been seeking to work cooperatively with the natural gas transmission companies to assess the scope of the problem. This cooperative effort has established a national testing program to develop a profile of PCB contamination in the gas lines. That program is now almost completed and your company has been identified as owning pipeline contaminated with PCBs. Since the pipe contain PCBs in concentrations greater than 50 ppm, the pipeline is a P Item within the meaning of 40 CFR Section 761.2(x). The use of such items is regulated pursuant to 40 CFR 761.30 and Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. Section 2605(e). The Environmental Protection Agency wishes to work with you to resolve this situation as soon as possible.

In summary, this letter sets out a four step program for quickly reducing any risks from the PCBs in your pipelines. The first step is to ensure that any PCBs being removed from your system are handled properly. The next step will be to obtain information on ways to prevent further movement of PCBs into other systems. The third step is to implement the best option identifie in step two. The final step will be to obtain information on the possible methods for removing any remaining PCBs from the system. The details of these requirements appear below.

The Agency's most immediate concern is that PCB contaminated condensate handled as part of normal operations does not pose any human or environmental risk. Accordingly, we request that you prepare and submit to the Agency a plan for handling all PCB liqui removed from your system. That plan should include the following:

1) A description of the locations from which the liquids are being removed;

2) An estimate of the amounts of condensate being removed;

3) A description of the measures being taken to protect workers handling any items coming in contact with PCBs; and

4) Procedures you will follow for handling, marking, storing and disposing of the PCBs in accordance with TSCA and the applicable Department of Transportation regulations.

The next concern of the Agency is to prevent any movement of PCBs from your system into other transmission or distribution systems. Although it may be helpful to eliminate the sources of the contamination, it may be that introduction of PCBs into other systems can be stopped most quickly by other methods; for example, through the use of scrubbers. Accordingly, EPA requests that you begin preparing a report on the technical alternatives for preventing further movement of PCBs into other transmission or distribution systems. This report should include the following:

1) A description of all possible alternatives for preventing movement of PCBs into other systems.

2) The best available estimates of the cost, effectiveness, and time needed for each alternative.

3) Your assessment of the feasibility of each method.

4) A discussion of the potential for human and environmental exposure to PCBs of each method.

Once your company submits this report to EPA, we will enter into discussions with you to agree on which program is most appropriate to stop any introduction of PCBs into other systems. Once a method is agreed upon, you should submit and implement a plan to achieve this result as soon as possible. That plan shou include the following:

1) A suggested implementation timetable.

2) A complete description of the agreed upon methodology.

3) Procedures you will follow to assure worker safety.

4) Procedures you will follow for handling, marking, storing, and disposing of PCBs in accordance with the law.

5) A plan for monitoring the effectiveness of the program and reporting this information to EPA.

Even if it is possible to stop any entry of PCBs into other systems without abating the source, EPA nonetheless expects you to identify and eliminate the source of the PCBs in your system. Accordingly, you should begin all testing necessary to determine the exact source of PCBs in your condensate. As soon as you have identified those sources, please submit a report to EPA containing the following information:

1) A complete identification of all sources of the PCBs in your system.

2) A plan for eliminating the source. This plan should include:

   - A suggested timetable;
   - Measures to assure the safety of workers;
   - Procedures you will follow for handling, storing, and disposing of the PCBs in accordance with the law.

3) A monitoring plan, to assure that the source of PCBs has been eliminated.

Finally, the steps you take to prevent entry of PCBs into other systems and to abate the source may not necessarily remove all PCB contaminated condensate currently in your transmission lines. If the steps you have taken would not have removed the PCBs from the pipeline, it will be necessary for you to submit a report to EPA detailing the following information:

1) The length of pipe still contaminated;

2) An estimate of the amount of condensate still in the pipe, and the concentration of PCBs in it;

3) An identification of all possible methods for removing the remaining PCB contamination, together with the best possible estimates of the cost, effectiveness, feasibility, and length of time necessary for each method.

When EPA receives this report, it will evaluate this information in light of your success in eliminating any movement of PCBs into other systems. On this basis, EPA in cooperation with your company will decide what the most appropriate action is for dealing with the remaining contamination.

By two weeks from the date of this letter, please inform EPA when you expect to submit the reports required above and the reasons for the proposed deadlines. These dates will be reviewed to make sure there is no undue delay.

The Agency is willing to discuss any matter which will further the goal of obtaining the best protection from the hazards of PCBs. Any questions you may have, as well as any report required by this letter, should be directed to:

Mr. John Seitz, Chief
Compliance Monitoring Branch
Pesticides and Toxic Substances
Enforcement Division
Environmental Protection Agency
401 M St. S.W.
Washington, D.C. 20460

Thank you for your cooperation in this program. I am certain that with your continued participation, we will be able to solve this problem quickly and effectively.

Sincerely yours,

A.E. Conroy II

A. E. Conroy II, Director
Pesticides and Toxic Substances
Enforcement Division

Enclosure

xxx
Attachment I
December 4, 1981
Page 1 of 5

SUGGESTED TRANSMISSION COMPANY REMEDIAL MONITORING

I. BACKGROUND

Earlier this year, several natural gas transmission companies which participated in the EPA/gas industry cooperative sampling program identified PCB levels at or greater than 50 ppm in condensate from portions of their systems. These companies have instituted remedial programs to rectify this contamination problem. This document sets forth a suggested monitoring program which will supply information needed by the companies and EPA to determine the success of the remedial efforts.

In summary the suggested monitoring consists of: condensate sampling at key locations where gas is purchased and sold, and at major condensate collection points along the transmission line; tracking the volume of condensate collected at these key locations; and limited gas stream sampling at major sales points.

The Agency is aware that each company's situation is unique due to system design, system operation practices, PCB contamination situation, and remedial plans. However, because of the interrelation of the various companies involved, it is important for EPA to monitor the situation with data that is as uniform as possible. For these reasons, each company should adapt this monitoring plan to their individual situation, while still following the essential outline of this plan as closely as possible.

The details of this suggested monitoring program are explained below.

II. CONDENSATE SAMPLING

In order to closely track PCB contamination levels at certain key locations, condensate samples should be collected at the points outlined below.

1) The three locations on the contaminated portion of the system where the largest volume of gas is supplied to distribution companies. It is suggested that, in

addition to these three sales points, an additional sample be collected at one utility sales point in each state supplied by a contaminated portion of your system. One control sample should also be collected at a distribution supply location on a section of your system which is not contaminated.

2) Three points on the contaminated portion of the system where gas is supplied to other transmission companies.

3) Three condensate collection points within the contaminated portion of the system (excluding sales and interchange points) where large volumes of condensate are normally found.

4) Three locations where gas is purchased from another transmission company, particularly sites which are a potential source of PCBs entering your system.

5) One point where gas is received from an underground storage field on the contaminated portion of your system.

6) One location downstream and upstream of points where new equipment such as filter/separators, scrubbers, drips etc. are installed as part of your remedial effort. Additionally, condensate sampling should be conducted before and after other remedial steps such as pigging are carried out.

Reference to sampling locations, points, or sites refers to geographic location. If two or more lines operate in parallel at one of the geographic locations selected for sampling, each line should be sampled at that location.

This sampling should begin in January 1982 and continue until March 1983. It is suggested that condensate samples should be collected monthly during periods of high flow volume and quarterly during periods of low flow. Suggested sampling dates are outlined in Part VI below. To facilitate analysis and discussion of the data, it is suggested that condensate sampling results should be reported in the format of Appendix I.

III. CONDENSATE REMOVAL

Those transmission companies with PCB contaminated lines are systematically removing contaminated pipeline liquids as part of their remedial programs. Each company should submit information, according to the schedule found in Part VI below, showing the volume of PCB contaminated liquids collected during each reporting period. It is suggested that this information be submitted in the format of Appendix II. Specifically the following information is requested:

- The volume of condensate collected from those points chosen for monitoring in Part II above.
- The total volume of condensate collected from the contaminated portion of the system having a PCB concentration of 50 to 500 ppm (based on previous testing or tests on the specific liquids involved).
- The total volume of condensate collected from the contaminated portion of the system having a PCB concentration of 500 ppm or greater (based on previous testing or tests on the specific liquids involved).

This information will be used to assess the magnitude of the contamination and trends indicating improvement.

IV. GAS STREAM SAMPLING

Gas stream sampling should be conducted at the three major sales points selected for condensate sampling in Part II, number 1, above. One gas sample at each of these points should be collected in February 1982, June 1982, September 1982, and February 1983. These samples should be collected in conjunction with condensate samples. Gas stream samples should be collected using the June 1981, "Method to Measure PCBs in Natural Gas Pipelines", EPA 600/4-81-048 (method section pages A-1 through A-16). Questions concerning the technical aspects of gas stream sampling should be addressed to Michael Wood, PTSED, 202-472-3701, or Dr. William Mitchell, ORD, 919-541-2769. It is suggested that the gas sampling results be reported in the format of Appendix III.

These results will be used to determine the potential movement of PCBs in the gas stream under the present contamination situation and as the contamination levels are reduced.

V. QUALITY ASSURANCE - TECHNICAL ASSISTANCE

In order to determine the accuracy of sample analyses, the Agency will make available two 'check' samples of pipeline condensate containing a known quantity of PCBs for analysis by laboratories utilized during this program. These samples will be prepared and distributed by the National Enforcement Investigations Center (NEIC) in Denver, Colorado.

EPA will notify you prior to the check samples being sent to the laboratory. The laboratory will also be notified directly by NEIC prior to shipment of the samples. Questions and analytical results should be addressed directly to NEIC. NEIC will tabulate and analyze the results and provide this information to the individual laboratories and to EPA headquarters. EPA headquarters will inform each transmission company of the results for the laboratories they are using.

EPA will also provide technical assistance for questions relating to sample analyses. The EPA technical contact is Dean Hill of NEIC. Dean may be contacted at 303-234-3751. Requests for split analyses of problem samples should be referred directly to Mr. Hill.

VI. SUBMISSION OF INFORMATION

Each company should develop an initial report outlining their specific sampling plan. This should include:

- o A list of the exact location of the sampling sites including type of sampling point, i.e. a drip or scrubber, etc., and the category under which the point falls in Part II above.
- o A list of condensate collection points for reporting under Part III above, if condensate is not removed at the exact location where samples will be collected. This list would be needed, for example, in cases where the sampling point is a valve and the condensate from that portion of the line is removed at a drip three miles upstream.

- A system map indicating the location of sampling points (Part II) and condensate collection points (Part III).
- The name, address, and contact person at each laboratory used.

It is requested that this information be submitted to EPA by January 12, 1982.

It is also requested that monitoring reports be submitted according to the following schedule:

Report Date	For Samples Collected During
January 15, 1982	December 1981
April 15, 1982	January - March 1982
July 15, 1982	June 1982
October 15, 1982	September 1982
January 15, 1983	October - December 1982
April 15, 1983	January - March 1983

It is suggested that monitoring reports should be submitted in the formats of Appendices I - III which are attached. The reports should be prefaced with a short summary of ongoing remedial activities and any problems or unique situations you feel the Agency should be aware of.

APPENDIX II - SUGGESTED FORMAT FOR CONDENSATE COLLECTION REPORT

COMPANY:

DATE OF REPORT:

LOCATION	CATEGORY	DATE OF COLLECTION	VOLUME COLLECTED	PCB CONCENTRATION	DATE OF LAST SAMPLE	STORED AT	DISPOSED AT
				EXAMPLE			
OISE, ID DRIP INE #3	1	12/15/81	200 gallons	104 ppm - 1242	12/15/81	LINCOLN, MO	
OISE, ID DRIP INE # 3	1	1/20/82	130 gallons	97 ppm - 1242	1/11/81	LINCOLN, MO	
TZ, OR COMPRESSOR TATION LINE #12	4	1/20/82	2,000 gallons	890 ppm - 1221	1/20/82		KY INCINERATOR
TZ, OR COMPRESSOR INE # 13	4	1/20/82	200 gallons	410 ppm - 1242	1/20/81		KY INCINERATOR

TOTAL LIQUIDS CONTAINING 50 TO 500 PPM PCBs REMOVED FROM PCB CONTAMINATED PORTION OF SYSTEM 12/81 - 1/82 : 15,000 gallons

TOTAL LIQUIDS CONTAINING 500 PPM OR GREATER PCBs REMOVED FROM PCB CONTAMINATED PORTION OF SYSTEM 12/81 - 1/82 : 5,000 gallons

APPENDIX III - SUGGESTED FORMAT FOR GAS SAMPLING RESULTS

COMPANY:

SAMPLING LOCATION:

DATE OF SAMPLING:

SAMPLE NUMBER:

SAMPLE VOLUME: In liters of gas

ANALYTICAL RESULT: As ug/M^3 or ng/M^3

LIMIT OF DETECTION:

COMMENTS:

BLANK RESULT:

ASSOCIATED CONDENSATE SAMPLING RESULT:

- Exhibit GG -

TEXAS
EASTERN
Gas Pipeline Company
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

F. L. COHAGAN
VICE PRESIDENT

January 21, 1982

Mr. John S. Seitz (En-342)
Environmental Protection Agency
401 M Street S.W.
Washington, D.C. 20460

Dear Mr. Seitz:

A monitoring plan for PCB contamination has been developed for the Texas Eastern Gas Pipeline Company and Transwestern Pipeline Company systems in accordance with Mr. A. E. Conroy II's letter dated December 7, 1981. In accordance with Item VI of Mr. Conroy's letter, attached as our initial report is a copy of the individual plans. For reference purposes, the numbering sequence of the plans follow the format and correspond to those contained in Mr. Conroy's letter.

Please advise should you have any questions or should any part of the plans not meet with your approval.

Sincerely,

F.L. Cohagan
F. L. Cohagan

FLC:lk
Attachments

P. O. BOX 2521 HOUSTON, TEXAS 77001 (713) 759-4437

TEXAS EASTERN GAS PIPELINE COMPANY
PCB REMEDIAL MONITORING PROGRAM
(REFERENCE EPA LETTER OF 12-7-81)

Sheet 1 of 6

I. BACKGROUND

II. CONDENSATE SAMPLING

1. (a) Three locations on the contaminated portion of the system where the largest volume of gas is supplied to distribution companies.

LOCATION SELECTIONS:

	MS No.	MS Name
(1)	058	Brooklyn Union Goethals Bridge, NY
(2)	034	PGW-Levick St. Philadelphia, PA
(3)	449	Public Service Central Works, NJ

(b) One utility sales point in each state supplied by a contaminated portion of your system.

LOCATION SELECTIONS:

	State	MS No.	MS Name
(1)	Texas	1436	United-Chirino #2
(2)	Louisiana	418	Gloster, Miss.*

*(1st sales point down downstream of Louisiana. No sales points in contaminated segment of system in Louisiana.)

	State	MS No.	MS Name
(3)	Arkansas	107	Ark-La Gas- Cabot, AR
(4)	Missouri	043	Missouri Utilities Dexter, MO
(5)	Illinois	1242	Central Illinois Goreville, IL
(6)	Indiana	941	Lawrenceburg Gas Lawrenceburg, IN
(7)	Ohio	095	NG & O-Caldwell Noble Co., OH
(8)	Mississippi	098	Fulton, MS
(9)	Alabama	947	North Alabama Gas Distr. Muscle Shoals, AL

TEXAS EASTERN GAS PIPELINE COMPANY
PCB REMEDIAL MONITORING PROGRAM
(REFERENCE EPA LETTER OF 12-7-81)

Sheet 2 of 6

(10)	Tennessee	103	Lebanon, TN
(11)	Kentucky	313	Columbia, KY
(12)	West Virginia	005	Columbia Gas (Mfgrs.) Rosby Rock, WV

(13) Pennsylvania - See Item 1(a) above

(14) New Jersey - See Item 1(a) above

(15) New York - See Item 1(a) above

(c) One distribution supply location on a section of system which is not contaminated.

LOCATION SELECTION:

MS No.	MS Name
1221	Mississippi Gas Corp. Reeves, LA

2. Three points on the contaminated portion of the system where gas is supplied to other transmission companies.

LOCATION SELECTIONS:

	MS No.	MS Name
(1)	087	Algonquin-Lambertville, NJ
(2)	065	Texas Gas-Lisbon, LA
(3)	004	Consolidated Gas Clarendon, OH

TEXAS EASTERN GAS PIPELINE COMPANY
PCB REMEDIAL MONITORING PROGRAM
(REFERENCE EPA LETTER OF 12-7-81)

Sheet 3 of 6

3. Three condensate collection points within the contaminated portion of the system (excluding sales and interchange points) where large volumes of condensate are normally found.

LOCATION SELECTIONS:

Collection Location	Sampling Point
(1) Danville Compressor Station (KY)	Accumulator Tank
(2) Joaquin Compressor Station (TX)	Accumulator Tank
(3) Norris City Compressor Station (IL)	Accumulator Tank

4. Three locations where gas is purchased from another transmission company.

LOCATION SELECTIONS:

	MS No.	MS Name
(1)	215	Texas Gas-Lebanon, OH
(2)	216	United-Longview, TX
(3)	217	United-Kosciusko, MI

5. One Point where gas is received from an underground storage field on the contaminated portion of the system.

LOCATION SELECTION:

Compressor Station No. 21-A, Uniontown, Pennsylvania, where gas is received from the Accident, Maryland, storage field. (Sampling point-drainage from incoming pipeline from storage).

6. (a) One location downstream and upstream of points where new equipment such as filter/separators, scrubbers, drips, etc. are installed as part of remedial effort.

ACTION PROPOSED: Not applicable at this time.

(b) Condensate sampling before and after other remedial steps such as pigging are carried out.

ACTION PROPOSED: Pipeline samples will be taken before and after pigging performed for PCB cleanup purposes.

TI S EASTERN GAS PIPELINE COMPANY
PCB REMEDIAL MONITORING PROGRAM
(REFERENCE EPA LETTER OF 12-7-81)

Sheet 4 of 6

III. CONDENSATE REMOVAL

1. Volume of condensate collected from those points chosen for monitoring in Part II above.

ACTION PROPOSED: Accumulate information on condensate collected at the following locations as identified in Part II above.

a. MS 058
b. MS 034
c. MS 449
d. MS 1436
e. MS 418
f. MS 107
g. MS 043
h. MS 1242
i. MS 941
j. MS 095
k. MS 098
l. MS 947
m. MS 103
n. MS 313
o. MS 005
p. MS 1221
q. MS 087
r. MS 065
s. MS 004
t. Danville Station, KY
u. Joaquin Station, TX
v. Norris City Station (No. 11), IL
w. MS 215
x. MS 216
y. MS 217
z. Uniontown Station No. 21-A (Pipeline from Accident Storage)

2. Total volume of condensate collected from the contaminated portion of the system having a PCB concentration of 50 to 500 PPM.

ACTION PROPOSED: Accumulate quantities of condensate collected from the following segments of the system.

a. 24" Line No. 11 from Lufkin to Joaquin Station
b. 36" Line No. 40 from LaRose Station to New Roads
c. 30" Line No. 14 System from New Roads to Kosciusko Station
d. 24" Line No. 1 System from Longview Station to Station No. 8 (Fagus, MO)
e. Condensate collected at Station No. 11 Norris City, Illinois
f. 24" and 20" WEP System from Station 21-A, Uniontown, PA, to Station 26, Lambertville, NJ
g. Condensate collected at MS 058 - Brooklyn Union, Goethals Bridge, NY

3. Total volume of condensate collected from the contaminated portion of the system having a PCB concentration of 500 PPM of greater.

ACTION PROPOSED: Accumulate quantities of condensate collected from the following segments of the system.

a. 24" Line No. 11 from Joaquin Station to Sharon, LA
b. 16" and 20" Line No. 13 from Joaquin Station to Longview Station
c. 30" System from Kosciusko Station to Station 21-A, Uniontown, PA
d. 30" Storage Line No. 9 system from Station 21-A, Uniontown, PA, to Delmont Station
e. Penn Jersey system from Delmont Station 26, Lambertville, NJ
f. Mainline system from Station 26, Lambertville, NJ, to New York State

TEXAS EASTERN GAS PIPELINE COMPANY
PCB REMEDIAL MONITORING PROGRAM
(REFERENCE EPA LETTER OF 12-7-81)

Sheet 5 of 6

IV. GAS STREAM SAMPLING

Gas stream sampling to be conducted in conjunction with condensate samples at the major sales points selected for condensate sampling (Part II, No. 1 above) using the June, 1981 "Method to Measure PCBs in Natural Gas Pipelines," EPA 600/4-81-048 (method section pages A-1 thru A-16). One gas sample to be collected at each of the three points as follows:

(1) February, 1982
(2) June, 1982
(3) September, 1982
(4) February, 1983

ACTION PROPOSED: One gas sample to be collected in accordance with the above schedule at each of the following three locations:

	MS No.	MS Name
(1)	058	Brooklyn Union Goethals Bridge, NY
(2)	034	P.G.W. - Levick Street Philadelphia, PA
(3)	449	Public Service Central Works, NJ

V. QUALITY ASSURANCE - TECHNICAL ASSISTANCE

EPA is to make available two "check" samples of pipeline condensate containing a known quantity of PCBs for analysis by laboratories utilized during this program.

ACTION PROPOSED: Labs to be used are as follows:

(1) Primary Lab

Texas Eastern Analytical Laboratory
Texas Eastern Gas Pipeline Company
P. O. Box 2521
Houston, Texas 77001
Attention: Mr. Douglas Dodds

(2) Alternate Labs

(a) Southern Petroleum Laboratories, Inc.
8880 Interchange
P. O. Box 20807
Houston, Texas 77054
Attention: Mr. Sammy Russo

(b) Gollob Analytical Service
47 Industrial Road
Berkeley Heights, New Jersey 07922
Attention: Mr. Mel Givens

TEXAS EASTERN GAS PIPELINE COMPANY
PCB REMEDIAL MONITORING PROGRAM
(REFERENCE EPA LETTER OF 12-7-81)

Sheet 6 of 6

VI. SUBMISSION OF INFORMATION

1. An initial report is required to be submitted to EPA by January 12, 1982, to include:

   (a) List of exact location of sampling sites including type of sampling point (scrubber, drip, etc.) and category under which the point falls in Part II above.

   RESPONSE: See information furnished for Part II above. Condensate samples will be collected at meter station facilities, except as otherwise noted.

   (b) A list of condensate collection points for reporting under Part III above if condensate is not removed at the exact location where samples will be collected.

   RESPONSE: It is proposed that all condensate collected for reporting under Part III will be collected at the facility location.

   (c) A system map indicating the location of sampling points (Part II) and condensate collection points (Part III).

   RESPONSE: See attached system map.

   (d) The name, address, and contact person at each laboratory used.

   RESPONSE: Reference Part V above.

2. Monitoring reports to be submitted as follows:

Report Date	For Samples Collected During
January 15, 1982	December, 1981
April 15, 1982	January-March, 1982
July 15, 1982	June, 1982
October 15, 1982	September, 1982
January 15, 1983	October-December, 1982
April 15, 1983	January-March, 1983

ACTION PROPOSED: Because of the timing of the receipt of the EPA letter and the time needed to develop and implement the monitoring plan for a system as large and complex as the Texas Eastern system, it is proposed that sampling will commence with the January-March, 1982 sampling period, reportable April 15, 1982.

1-11-82

Sheet 1 of 4

TRANSWESTERN PIPELINE COMPANY
PCB REMEDIAL MONITORING PROGRAM
(REFERENCE EPA LETTER OF 12-7-81)

I. BACKGROUND

II. CONDENSATE SAMPLING

1. (a) Three locations on the contaminated portion of the system where the largest volume of gas is supplied to distribution companies.

RESPONSE: No gas is supplied directly to a distribution company from the contaminated portion of the system. (Reference Part II Item 2).

(b) One utility sales point in each state supplied by a contaminated portion of your system.

RESPONSE: No utility sales points are supplied with gas in the states traversed by the contaminated portion of the system.

(c) One distribution supply location on a section of system which is not contaminated.

LOCATION SELECTION: Cities Service - Canadian sales point, Hemphill County, Texas.

2. Three points on the contaminated portion of the system where gas is supplied to other transmission companies.

LOCATION SELECTION: The only point on the contaminated portion of the system where gas is supplied to another transmission company is to Pacific Lighting Service Company at Needles, Mohave County, Arizona.

3. Three consendate collection points within the contaminated portion of the system (excluding sales and interchange points) where large volumes of condensate are normally found.

LOCATION SELECTIONS:

	Collection Location	Sampling Point
(1)	Compressor Station No. 2 Flagstaff, Arizona	Scrubber Pit
(2)	Compressor Station No. 5 Thoreau, New Mexico	Scrubber Pit
(3)	Compressor Station No. 7 Mountainair, New Mexixo	Scrubber Pit

4. Three locations where gas is purchased from another transmission company.

RESPONSE: Gas is not normally purchased from another transmission company anywhere on the contaminated portion of the system.

5. One point where gas is received from an underground storage field on the contaminated portion of the system.

RESPONSE: Gas is not received from an underground storage field anywhere on the contaminated portion of the system.

TRANSWESTERN PIPELINE COMPANY
PCB REMEDIAL MONITORING PROGRAM
(REFERENCE EPA LETTER OF 12-4-81)

6. (a) One location downstream and upstream of points where new equipment such as filter/separators, scrubbers, drips, etc. are installed as part of remedial effort.

   RESPONSE: Not applicable at this time.

   (b) Condensate sampling before and after other remedial steps such as pigging are carried out.

   ACTION PROPOSED: Pipeline samples will be taken before and after pigging performed for PCB cleanup purposes.

III. CONDENSATE REMOVAL

1. Volume of condensate collected from those points chosen for monitoring in Part II above.

   ACTION PROPOSED: Accumulate information on condensate collected at the following locations

   a. Cities Service - Canadian, Hemphill County, Texas
   b. Pacific Lighting Service Company, Needles, Mohave County, Arizona
   c. Compressor Station No. 2, Flagstaff, Arizona
   d. Compressor Station No. 5, Thoreau, New Mexico
   e. Compressor Station No. 7, Mountainair, New Mexico

2. Total volume of condensate collected from the contaminated portion of the system having a PCB concentration of 50 to 500 PPM.

   ACTION PROPOSED: Accumulate quantities of condensate collected in the system from Compressor Station No. 8 - Corona, New Mexico to Pacific Lighting sales point at Needles, Arizona.

3. Total volume of condensate collected from the contaminated portion of the system having a PCB concentration of 500 PPM or greater.

   RESPONSE: PCB concentrations in the contaminated portion of the system do not normally run above 500 PPM.

IV. GAS STREAM SAMPLING

Gas stream sampling to be conducted in conjunction with condensate samples at the major sales points selected for condensate sampling (Part II, No. 1 above) using the June, 1981 "Method to Measure PCBs in Natural Gas Pipelines," EPA 600/4-81-048 (method section pages A-1 thru A-16). One gas sample to be collected at each of the three points as follows:

(1) February, 1982
(2) June, 1982
(3) September, 1982
(4) February, 1983

RESPONSE: No major sales points are designated for condensate sampling under Part II, No. 1 above. However, one gas sample will be collected at

TRANSWESTERN PIPELINE COMPANY
PCB REMEDIAL MONITORING PROGRAM
(REFERENCE EPA LETTER OF 12-4-81)

the Pacific Lighting sales point at Needles, Arizona in accordance with the above schedule.

V. QUALITY ASSURANCE - TECHNICAL ASSISTANCE

EPA is to make available two "check" samples of pipeline condensate containing a known quantity of PCBs for analysis by laboratories utilized during this program.

ACTION PROPOSED: Labs to be used are as follows:

(1) Primary Lab-
Texas Eastern Analytical Laboratory
Texas Eastern Gas Pipeline Company
P. O. Box 2521
Houston, Texas 77001
Attention: Mr. Douglas Dodds

(2) Alternate Lab
Southern Patroleum Laboratories Inc.
8880 Interchange
P. O. Box 20807
Houston, Texas 77054
Attention: Mr. Sammy Russo

IV. SUBMISSION OF INFORMATION

1. An initial report is required to be submitted to EPA by January 12, 1982 to include:

   (a) List of exact location of sampling sites including type of sampling point (scrubber, drip, etc.) and category under which the point falls in Part II above.

   RESPONSE: See information furnished for Part II above. Condensate samples will be collected at meter station facilities, except as otherwise noted.

   (b) A list of condensate collection points for reporting under Part III above if condensate is not removed at the exact location where samples will be collected.

   RESPONSE: It is proposed that all condensate collected for reporting under Part III will be collected at the facility location.

   (c) A system map indicating the location of sampling points (Part II) and condensate collection points (Part III).

   RESPONSE: See attached system map.

   (d) The name, address, and contact person at each laboratory used.

   RESPONSE: Reference Part V above.

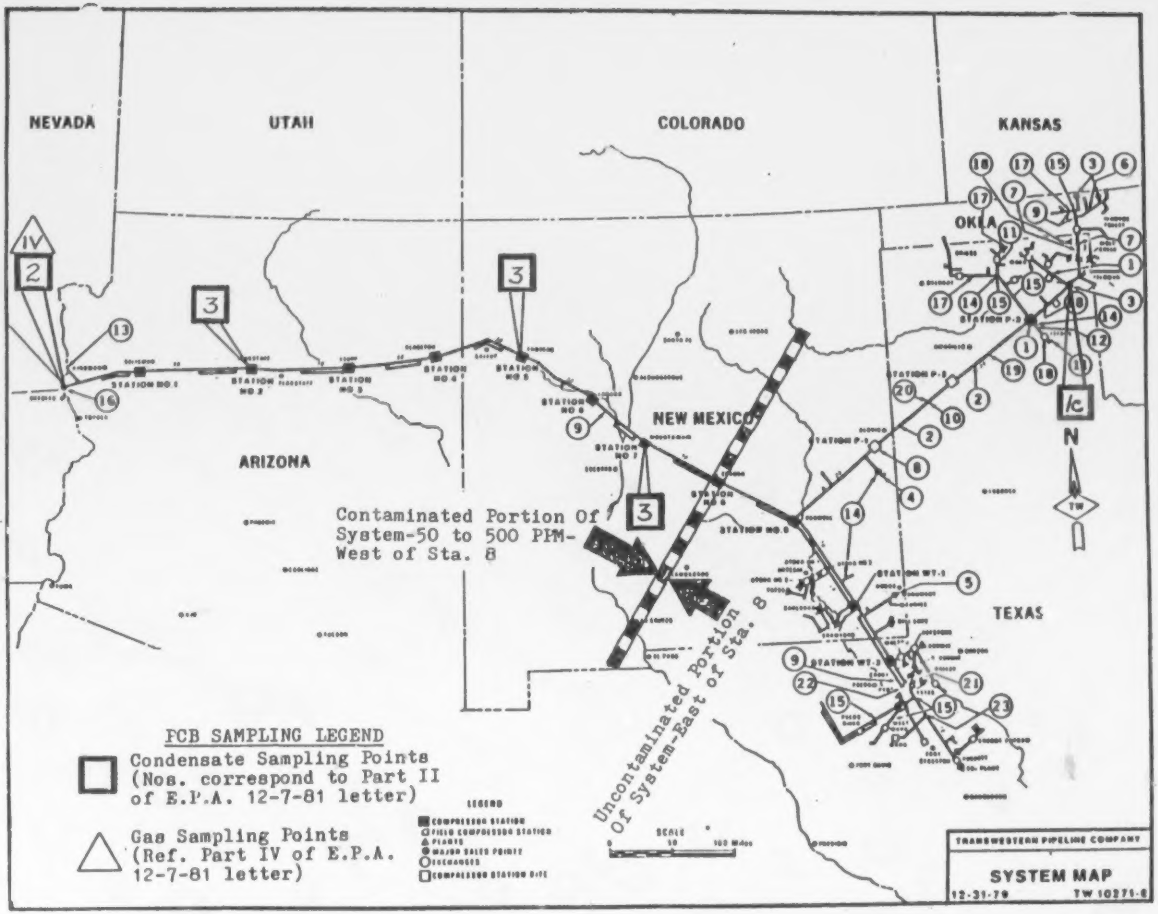
TRANSWESTERN PIPELINE COMPANY
PCB REMEDIAL MONITORING PROGRAM
(REFERENCE EPA LETTER OF 12-4-81)

2. Monitoring reports to be submitted as follows:

Report Date	For Samples Collected During
January 15, 1982	December, 1981
April 15, 1982	January-March, 1982
July 15, 1982	June, 1982
October 15, 1982	September, 1982
January 15, 1983	October-December, 1982
April 15, 1983	January-March, 1983

ACTION PROPOSED: Because of the timing of the receipt of the EPA letter and the time needed to develop and implement the monitoring plan, it is proposed that sampling will commence with the January-March, 1982 sampling period, reportable April 15, 1982.

1-11-82


NEVADA
UTAH
COLORADO
KANSAS
OKLA
ARIZONA
NEW MEXICO
TEXAS
STATION NO 1
STATION NO 2
STATION NO 3
STATION NO 4
STATION NO 5
STATION NO 6
STATION NO 7
STATION NO 8
STATION NO 9
STATION P-1
STATION P-2
STATION WT-1
STATION WT-2
2
IV
3
3
3
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13
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15
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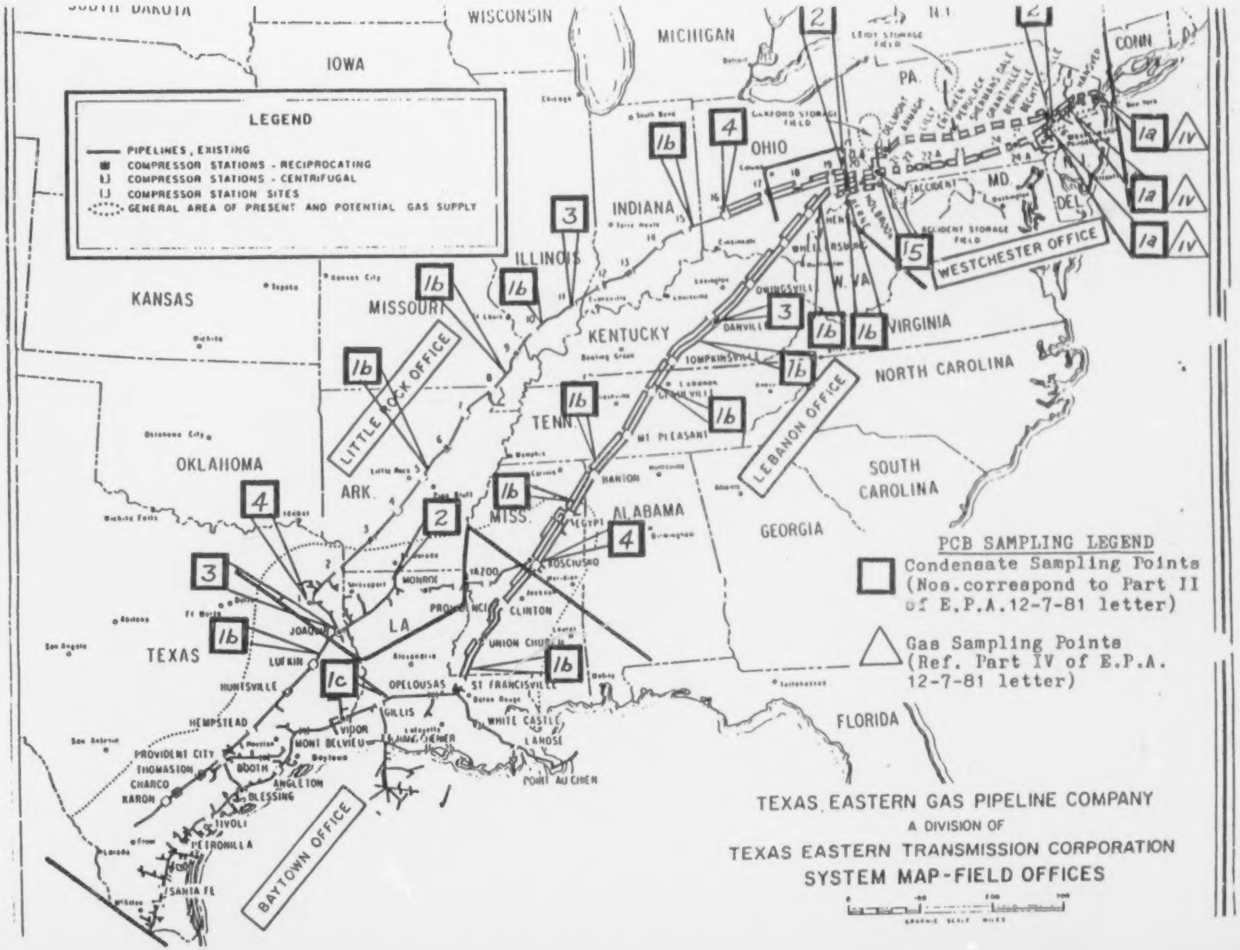
9
18
17
15
3
6
7
1
3
14
12
N
TW
Contaminated Portion Of System-50 to 500 PPM-West of Sta. 8
Uncontaminated Portion Of System-East of Sta. 8
PCB SAMPLING LEGEND
Condensate Sampling Points (Nos. correspond to Part II of E.P.A. 12-7-81 letter)
Gas Sampling Points (Ref. Part IV of E.P.A. 12-7-81 letter)
LEGEND
COMPRESSOR STATION
FIELD COMPRESSOR STATION
PLANTS
MAJOR SALES POINTS
EXCHANGES
COMPRESSOR STATION SITE
SCALE
0
50
100 Miles
TRANSWESTERN PIPELINE COMPANY
SYSTEM MAP
12-31-79
TW 10271-8



TEXAS EASTERN GAS PIPELINE COMPANY
A DIVISION OF
TEXAS EASTERN TRANSMISSION CORPORATION
SYSTEM MAP-FIELD OFFICES

PCB SAMPLING LEGEND

☐ Condensate Sampling Points (Nos. correspond to Part II of E.P.A. 12-7-81 letter)

△ Gas Sampling Points (Ref. Part IV of E.P.A. 12-7-81 letter)

LEGEND

- PIPELINES, EXISTING
- COMPRESSOR STATIONS - RECIPROCATING
- COMPRESSOR STATIONS - CENTRIFUGAL
- COMPRESSOR STATION SITES
- GENERAL AREA OF PRESENT AND POTENTIAL GAS SUPPLY

SOUTH DAKOTA
WISCONSIN
MICHIGAN
IOWA
KANSAS
MISSOURI
ILLINOIS
INDIANA
OHIO
PA.
N.J.
CONN
MD.
DEL
W. VA
VIRGINIA
KENTUCKY
TENN.
NORTH CAROLINA
SOUTH CAROLINA
GEORGIA
ALABAMA
MISS.
ARK.
OKLAHOMA
LA
TEXAS
FLORIDA
WESTCHESTER OFFICE
LEBANON OFFICE
LITTLE ROCK OFFICE
BAYTOWN OFFICE
LEIDY STORAGE FIELD
OAKFORD STORAGE FIELD
ACCIDENT STORAGE FIELD
ACCIDENT
DELMONT
ARMAGH
LILLY
ENTRIKEN
PERULACK
SHERMANS DALE
GRANTVILLE
BERNVILLE
BECHTELSVILLE
HANOVER
HOLBROOK
BERNE
UNIONTOWN
WHITELSBURG
OWINGSVILLE
DANVILLE
TOMPKINSVILLE
GREENVILLE
MT PLEASANT
HAMILTON
EGYPT
KOSCIUSKO
YAZOO
MONROE
PROVIDENCE
CLINTON
UNION CHURCH
ST FRANCISVILLE
OPELOUSAS
GILLIS
WHITE CASTLE
LAROSE
POINT AU CHIEN
JOAQUIN
LUFKIN
HUNTSVILLE
HEMPSTEAD
PROVIDENT CITY
THOMASTON
CHARCO
KARON
VIDOR
MONT BELVIEU
BOOTH
ANGLETON
BLESSING
VIVOLI
PETRONILLA
SANTA FE
1a
IV
1b
1c
2
3
4
5

Exhibit HH

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 30 1986

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCE

MEMORANDUM

SUBJECT: Texas Eastern's Use of Earthen Pits to Store and Dispose of PCB Contaminated Pipeline Liquids

FROM: John A. Moore
Assistant Administrator
for Pesticides and Toxics Substances

TO: Richard H. Mays
Acting Assistant Administrator
for Enforcement and Compliance Monitoring

A preliminary review of information obtained from Texas Eastern Gas Pipeline Company indicates that Texas Eastern corporate officials may have knowingly and willfully violated TSCA Section 6 and the PCB Rule.

Through this memorandum, I am referring this matter to you for your consideration and ask that you review this matter to determine if a criminal investigation is warranted. For specific factual details of the alleged TSCA violations, you should contact John Seitz at 382-7830 and arrange for a meeting.

6/30/86

Summary of Texas Eastern Gas Pipeline Company's Use of Earthen Pits to Dispose of Pipeline Liquids

In 1981, PCBs were discovered in the natural gas pipeline transmission and distribution systems. Texas Eastern is one of the natural gas pipeline companies that have participated in a cooperative PCB remedial measures program with EPA since 1981. EPA informed each natural gas pipeline company participating in the PCB remedial measures program that all PCBs removed from natural gas pipelines must be stored and disposed of according to the PCB Rule. Texas Eastern correspondence with EPA indicates that Texas Eastern was fully aware of the PCB storage and disposal requirements of the PCB Rule. However, OCM has determined that Texas Eastern has removed pipeline liquids from their pipelines, placed pipeline liquids in earthen pits, and backfilled these earthen pits since 1981 in violation of the PCB Rule.

- Texas Eastern has backfilled 91 of 104 total earthen pits associated with their system.
- Forty-six of the 91 backfilled earthen pits have been backfilled since 1981.
- Texas Eastern has added pipeline liquids to 22 earthen pits associated with PCB contaminated portions of their system from 1981 to 1984 and backfilled all 22 earthen pits during the same period.

Exhibit II

West Amwell Township

R. D. 1 · LAMBERTVILLE, NEW JERSEY 08530

Phone (609) 397-2054

March 17, 1987

TO: SENATE SUBCOMMITTEE ON SUPER FUND & ENVIRONMENTAL OVERSIGHT

RE: PCB CONTAMINATION IN WEST AMWELL TOWNSHIP, HUNTERDON COUNTY, NEW JERSEY

West Amwell Township is an agricultural-residential community of 2400 people governed by a three person Committee, of which I am the Mayor. There are approximately 850 homes which are almost all widely dispersed single family residences. Every residence has its own individual well and septic system. Agricultural uses are primarily livestock, dairy, horse, woodland management and crop farming. The Township is comprised of 21.6 square miles of which
69.22% is Farmland & Farm Residential,
13.96% is Single Family Residential,
11.45% is Vacant Land,
4.60% is Public Land (including Lambertville Water Company),
0.70% is Multi-Faimily Dwellings (two or more families),
0.52% is Commercial, and
0.18% is Industrial & Utility.

During the past year, the Township has been faced with the possibility of a County landfill site, a proposed major quarry site (which is now in litigation), three proposed major residential subdivisions (which would more than double our entire population), and now we have PCB contamination within our community.

The alleged source of the PCB contamination is a gas pipeline transfer station owned by Texas Eastern. The plant is located between State Highways 179 and 202 in Block 5, Lot 6 on the tax map, and consists of an area of 29.11 acres. The pipelines from the plant extend for five linear miles through the Township. The Texas Eastern plant is immediately surrounded by the village of Mt. Airy, two dairy farms, three large lakes, residences, cropland, two small livestock farms, and the Alexauken Creek.

Texas Eastern has expanded their plant at various times since it was first installed during World War II. To my knowledge, they have always approached Township Officials for the necessary permits and the Township Officials have always assisted them with any required information they needed to help expedite their plans. We thought we had a good working relationship with them and we are keenly disappointed that we were not informed of this possible contamination.

West Amwell Township had no knowledge of the pit or dumping of PCB's until February 22, 1987 when the story came out in the press. Since then the following events have taken place:

- February 28, 1987 the first sampling of wells was done on nine residential wells and the well on the Texas Eastern site. Also on February 28th, we attended a press conference and site inspection set up by Senator Lautenberg and held at the Texas Eastern site.
- March 5, 1987 the results of five out of the nine residential wells were found to have an unacceptable level of PCB's. That evening a regular Township Committee meeting was held where a lengthy discussion of the situation took place. NJDEP, Texas Eastern, and County Health Officials were present.
- March 6, 1987 the ten original wells were retested and samples were taken from twelve more wells.
- March 7, 1987 bottled water was made available to all Township residents by the Texas Eastern Company.

- March 14, 1987 a water testing program was set up by the County Health Department and run with the help of DEP whereby concerned residents could voluntarily have their water tested for PCB's for a $75.00 fee. Initially, fifty residents took advantage of the testing on this date and two additional dates were set up for several residents who could not be accomodated by the lab facilities.

We have grave concerns, as to what the extent of this problem might be, for several reasons -

1. The PCB pit is located next to a stream that flows directly into the Alexauken Creek which flows into the Delaware Canal and the Delaware River.
2. There are three lakes located just North of the site, several residences around the site, large amounts of cropland, and farm animals from which there is the sale of milk and meat.
3. The soil in the area includes Brunswick Shale which creates a greater than normal potential for openings and fractures that allows water to run at a rapid rate in numerous unpredictable patterns.
4. We are concerned with, what seems to be, an unusually high rate of residents with cancer in the area surrounding the Texas Eastern plant. See attached map.
5. The possible impact on property values.
6. Any additional financial burden placed on Township residents.

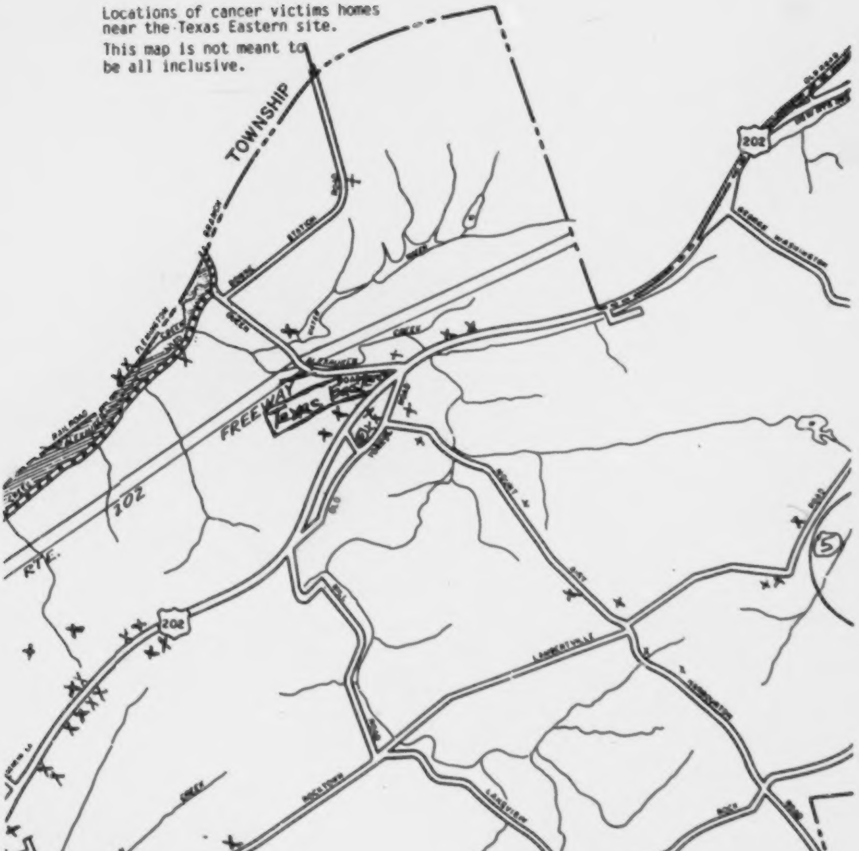
The reaction of the residents is anger, disappointment and disbelief that this situation has existed and been allowed to continue. This has caused a lot of anxiety which will probably continue to increase until everyone has a better understanding of the parameters of the contamination, the significance of the problem (especially as to the effects of PCB's), and more assurance of the ability of EPA, DEP, and Texas Eastern to effectively deal with the situation and completely clean it up.

It is important to me as Mayor that our residents are informed and assured at all times that everyone is doing everything possible to correct this situation.

As United States citizens, we are all concerned with, what we consider to be, negligence on the part of EPA and Texas Eastern. As a small community, we have neither the resources nor the legal authority to effectively deal with this problem. Therefore, we must rely on the power vested in this committee to remedy the situation.

Presented By: ______________________

Robert J. Fulper, Mayor
West Amwell Township



Locations of cancer victims homes near the Texas Eastern site.

This map is not meant to be all inclusive.

TOWNSHIP
FREEWAY
RTE. 202
Texas Eastern
202
5
CREEK
ROCK
518
VALLEY
TOWNSHIP

Exhibit JJ

EPA CHRONOLOGY
TEXAS EASTERN GAS PIPELINE COMPANY

1976	Toxic Substances Control Act (TSCA) enacted regulating polychlorinated biphenyls (PCBs).
February 17, 1978	EPA publishes rules (40 CFR Part 761) pursuant to TSCA regulating the marking and disposal of PCBs over 500 parts per million (ppm).
May 31, 1979	EPA publishes rules pursuant to TSCA banning the manufacture of PCBs and regulating the use, processing, distribution and disposal of PCBs over 50 ppm.
January 1981	PCBs discovered in a natural gas pipeline by the Long Island Lighting Company (LILCO) of New York.
February 1981	EPA institutes a national program of pipeline condensate sampling by natural gas pipeline companies to determine the extent and source of PCB contamination.
May 1981	EPA institutes a program by approximately 12 interstate gas transmission companies and 50 distribution companies identified through the condensate sampling program to monitor and remove PCBs from pipeline condensates. Texas Eastern Gas Pipeline Company (TEGP) was one of the 12 interstate gas transmission companies involved.
June 23, 1982	EPA/OCM issues an administrative complaint against TEGP regarding use of PCBs over 50 ppm in 16 natural gas pipeline compressors.
August 3, 1982	EPA/OCM enters Consent Agreement and Final Order with TEGP, settling the June 23 complaint, requiring TEGP to decontaminate designated pipeline compressors. TEGP completed decontamination efforts in compliance with the Order.

November 29, 1984	Region IX issues an administrative complaint against the Transwestern Pipeline Company (Transwestern), a subsidiary of TEGP, for improper marking, storage and disposal of waste oil in five earthen pits in violation of the PCB regulations.
April 24, 1985	Region IX enters Consent Agreement and Final Order with Transwestern, settling the November 29 complaint, requiring payment of a penalty of $125,000 and cleanup of earthen disposal pits.
August 14, 1985	EPA/OCM issues TEGP a Notice of Noncompliance (NON) for improper PCB marking and recordkeeping violations at its Delmont, Pennsylvania compressor station.
August 29, 1985	During a meeting between EPA/OCM and TEGP regarding August 14 NON, TEGP raises issue of use of earthen pits for disposal of gas pipeline liquids and waste oils. OCM requests information from TEGP on their use of earthen pits.
November 19, 1985	TEGP letter to EPA/OCM in response to the August 29 request for information. Response states that 3 TEGP pits contain PCBs between 386 to 4,278 ppm PCBs and that 48 pits have been backfilled. TEGP notifies EPA that Roy F. Weston, an environmental consulting company, has been hired to conduct pilot sampling at selected compressor station sites.
April 1, 1986	EPA/OCM letter to Texas Eastern requesting additional information on use of earthen pits.
April 9, 1986	EPA/OCM letter notifies Regions II through VII of Texas Eastern issue regarding earthen pits.
April 25, 1986	TEGP letter to EPA/OCM in response to April 1 information request. Response included preliminary Roy F. Weston sampling report on eight compressor station sites showing PCB contamination and revealed widespread use of earthen pits for disposal of pipeline liquids.

April 30, 1986	Meeting between EPA/OCM and TEGP regarding April 25 submission. EPA requests additional information including more detailed sampling of designated pits. TEGP was informed by EPA/OCM of possible PCB regulation violations.
June 30, 1986	OPTS referral to OECM for possible criminal investigation of TEGP disposal practices.
August 18, 1986	EPA Region I issues administrative complaint against Algonquin Gas Transmission Company, a company connected with TEGP, for PCB marking and storage violations concerning PCB contaminated pipeline condensates.
September 19, 1986	EPA/OCM sends letter to Interstate Natural Gas Association of America and 11 interstate gas pipeline companies requesting information on disposal of pipeline liquids in earthen pits.
October 17, 1986	EPA Region I enters Consent Agreement and Final Order with Algonquin, settling the August 18 complaint, requiring payment of $4,250 penalty.
September/December 1986	EPA receives responses from 11 interstate gas pipeline companies regarding the September 19 information request. Four companies report presence of earthen pits, with two of them reporting the presence of PCBs.
November, 1986	Request from TEGP to Assistant Administrator for OECM requesting meeting to discuss information regarding PCB contamination at TEGP compressor stations.
November 5, 1986	OECM/DOJ/OCM meeting with TEGP (EPA HQ). TEGP requests national coordination of compressor station sites cleanup.
December 1, 1986	OECM memo to RAs Regions II - VII advising of PCB contamination of TEGP pits, the November 5 meeting, and national coordination effort headed by OECM. (cc to Division Directors and Regional Counsels)
December 16, 1986	OECM receives Preliminary Report of Sampling Program at Texas Eastern Compressor Stations & Generic Cleanup Plan (Weston Reports) from TEGP.
December 19, 1986	OECM/OPTS/OSWER meeting with TEGP (EPA HQ). TEGP briefing regarding Weston Reports.

January 16, 1987	OECM receives Summary of Dioxin Sampling and Analysis from TEGP. Indicated presence of dioxin isomers at low levels at four of eight sites tested.
January 20, 1987	OWPE/OCM/OECM conference call with TEGP to clarify data in Weston Reports.
February 3, 1987	Telephone discussion between OECM staff and legal counsel for TEGP. TEGP advised of EPA position that site testing and cleanup actions must address potential RCRA/CERCLA contaminants.
February 4, 1987	OECM letter to TEGP summarizing statements of TEGP made during January 20 conference call.
February 4, 1987	OCM/OWPE meeting regarding development of EPA general cleanup strategy.
February 17, 1987	CERCLA §104/RCRA §3007 information request sent to TEGP (15 day response period).
February 19, 1987	OWPE memo to regional Waste Management Division Directors requesting notification of affected states.
February 20, 1987	OECM memo to RAs Regions II - VII requesting notification of affected states by March 2. (cc to regional and HQ Division Directors and DOJ)
February 25, 1987	EPA press release. Notice of creation of agency task force to investigate use of disposal pits by natural gas pipeline companies and preliminary site survey of TEGP compressor sites.

OECM - Office of Compliance Monitoring
OPTS - Office of Pesticides and Toxic Substances
OCM - Office of Compliance Monitoring (OPTS)
OSWER - Office of Solid Waste and Emergency Response
OWPE - Office of Waste Program Enforcement (OSWER)
DOJ - Department of Justice

1/21/88

TEXAS EASTERN GAS PIPELINE COMPANY

EPA CHRONOLOGY OF EVENTS
February 27, 1987 to December 31, 1987

February 27, March 3, & March 4, 1987	Briefing of House and Senate environmental committees on suspected PCB contamination of Texas Eastern compressor station sites and Agency investigation efforts.
February & March, 1987	EPA Regions II-VII notify officials of affected states of status of EPA investigation efforts.
February & March 1987	Preliminary assessments of PCB contamination at sixty-five Texas Eastern compressor station sites suspected to have used disposal pits conducted by EPA Regions II - VII or state agency personnel.
March 1987	EPA receives Results of the 54 Site Screening Program and Results of the Supplementary 8 Pilot Site Compressor Station Investigation Program from Texas Eastern.
March 2, 1987	EPA Regions II-VII notify officials of affected states of potential contamination of Texas Eastern sites and federal investigation efforts.
March 11, 1987	EPA issues CERCLA §104/RCRA §3007 information request to Texas Eastern seeking company PCB disposal manifests.
March 13, 1987	EPA issues CERCLA §104/RCRA §3007 information request to Texas Eastern seeking information about company's use of disposal pits.
March 20, 1987	EPA issues TSCA §11/CERCLA §122 subpoena to Texas Eastern (first CERCLA §122 subpoena issued) requiring production of corporate documents and pipeline operational information.
March, 1987 through August, 1987	Region II, in conjunction with NJ DEP, conducts sampling of groundwater sources near the Lambertville, N.J. compressor station site (West Amwell, N.J.) and determines that no PCB contamination of groundwater exists.

March, 1987 through December, 1987	EPA responds to numerous FOIA requests and requests for information from Congress regarding sites in the districts of various members.
April 1, 1987	State of Pennsylvania Department of Environmental Resources (PA DER) and Texas Eastern enter consent agreement requiring a phased characterization of PCB & hazardous substances in groundwater & soils at 18 PA sites. The agreement requires submission of a soil S&A program proposal in 5/87 and installation of groundwater monitoring wells beginning in 6/87.
April 14, 1987	Initiation of formal negotiations between EPA and Texas Eastern.
April, 1987 through December, 1987	Supplemental site investigations, as determined necessary by preliminary assessments of PCB contamination at Texas Eastern compressor station sites, conducted by EPA Regions II - VII or state agency personnel.
June & July, 1987	EPA Regions II-VII notify officials of affected states of status of EPA negotiation efforts.
August 4, 1987	State of New Jersey Department of Environmental Protection (NJ DEP) issues an adiministrative directive to Texas Eastern requiring the submission of a remedial investigation and feasibility study (RI/FS) proposal for the Lambertville, N.J. compressor station.
September 30, 1987	State of Kentucky Department of Environmental Protection (KY DEP) issues an administraive complaint to Texas Eastern seeking the payment of civil penalties and the RCRA closure of three compressor station sites in Kentucky.
October 1, 1987	Texas Eastern files an appeal of the 8/4/87 NJ DEP directive.
November 6, 1987	EPA Regions II-VII notify officials of affected states of pending Agreement In Principle between Texas Eastern and the United States.
November 9, 1987	Agreement In Principle reached between Texas Eastern and the United States outlining the parameters for further settlement discussions.

November 9, 1987	Briefing of House and Senate environmental committee staff by EPA management on the Agreement In Principle.
November 9, 1987	EPA Regions II-VII notify officials of affected states of the Agreement In Principle.
November 10, 1987	NJ DEP issues notice to Texas Eastern of intent to conduct RI/FS at the Lambertville, N.J. compressor station site.
November 20, 1987	EPA staff meets with representatives of the PA DER at state's request to explain details of Agreement In Principle.

Exhibit KK

FRANK R. LAUTENBERG
NEW JERSEY

COMMITTEE:
APPROPRIATIONS

SUBCOMMITTEES:
COMMERCE, JUSTICE, STATE AND JUDICIARY
DISTRICT OF COLUMBIA
FOREIGN OPERATIONS
HUD-INDEPENDENT AGENCIES
TRANSPORTATION, CHAIRMAN

United States Senate
WASHINGTON, DC 20510

COMMITTEE:
BUDGET

COMMITTEE:
ENVIRONMENT AND PUBLIC WORKS

SUBCOMMITTEES:
ENVIRONMENTAL PROTECTION HAZARDOUS WASTES AND TOXIC SUBSTANCES
SUPERFUND AND ENVIRONMENTAL OVERSIGHT, CHAIRMAN

HELSINKI COMMISSION

November 30, 1987

Lee M. Thomas
Administrator
Environmental Protection Agency
Washington, D.C.

Dear Lee:

I am writing to you about information I have obtained on possible PCB contamination in Hanover, New Jersey, at a location on the Texas Eastern Gas Pipeline Company.

According to preliminary results by Texas Eastern's consultant, PCB concentrations of 902 ppm in the soil and 2300 ppm in onsite drainage ditch sediments were detected at the company's Hanover station.

I understand that similar tests by EPA for Hanover have not been completed yet, but soon will be. I request a full accounting of the situation at Hanover, which should include notification at the earliest possible time of EPA's own results.

I would like to know the scope, the health and environmental risks, and the causes of the possible contamination at Hanover. If the company's tests are confirmed, I expect the Agency to assure that the final consent decree, which is still being negotiated with the company, provide a cleanup plan that fully addresses the problem at Hanover.

I expect prompt notification of the results from Hanover and any other New Jersey pipeline sites. I urge you to assure that all pipeline related contamination in New Jersey is fully remediated and given the highest priority.

I also request that you make community relations personnel available to assure that the public in Hanover and any other affected towns is kept fully informed about all pipeline related contamination.

In addition, while the Texan Eastern study indicated lower contamination levels at a Staten Island site, I request a full accounting and remediation of this situation as well.

REPLY TO:

☐ 717 HART SENATE OFFICE BUILDING
WASHINGTON, DC 20510
(202) 224-4744

☐ ONE GATEWAY CENTER SUITE 1510
NEWARK, NEW JERSEY 07102
(201) 645-3030

☐ THREE COOPER PLAZA
SUITE 409 SOUTH
CAMDEN, NEW JERSEY 08103
(609) 757-5353

☐ COURT PLAZA NORTH
25 MAIN STREET
HACKENSACK, NEW JERSEY 07601
(201) 342-0536

Consistent with the assurance made by your Assistant Administrator for the Office of Compliance and Enforcement Monitoring, Thomas Adams, during his March testimony, I request that the Agency keep the Subcommittee fully informed about the status and findings at the sites across the country.

Sincerely,

Frank

Frank R. Lautenberg
Chairman, Superfund and
Environmental Oversight
Subcommittee

Exhibit LL

FRANK R. LAUTENBERG
NEW JERSEY

COMMITTEE:
APPROPRIATIONS

SUBCOMMITTEES:
COMMERCE, JUSTICE, STATE AND JUDICIARY
DISTRICT OF COLUMBIA
FOREIGN OPERATIONS
HUD-INDEPENDENT AGENCIES
TRANSPORTATION, CHAIRMAN

United States Senate
WASHINGTON, DC 20510

COMMITTEE:
BUDGET

COMMITTEE:
ENVIRONMENT AND PUBLIC WORKS

SUBCOMMITTEES:
ENVIRONMENTAL PROTECTION HAZARDOUS WASTES AND TOXIC SUBSTANCES
SUPERFUND AND ENVIRONMENTAL OVERSIGHT, CHAIRMAN

HELSINKI COMMISSION

November 30, 1987

Mr. Derrill Cody
Chairman of the Board and CEO
Texas Eastern Gas Pipeline Company
Box 2521
Houston, Texas 77252

Dear Mr. Cody:

According to preliminary results by Texas Eastern's consultant, PCB concentrations of 902 ppm in the soil and 2300 ppm in onsite drainage ditch sediments were detected at the company's Hanover station.

I understand that similar tests by EPA for Hanover have not been completed yet, but soon will be. I request a full accounting of the situation at Hanover.

I would like to know the scope, the health and environmental risks, and the causes of the possible contamination at Hanover. If the company's tests are confirmed, I expect Texas Eastern to ensure that the final consent decree, which is still being negotiated with the government, provide a cleanup plan that fully addresses the problem at Hanover, and any other contamination in New Jersey.

In addition, I request a similar accounting of the relatively lower contamination levels identified by your consultant in Staten Island, New York.

Sincerely,

Frank Lautenberg

Frank R. Lautenberg
Chairman, Superfund and
Environmental Oversight
Subcommittee

REPLY TO:

☐ 717 Hart Senate Office Building
Washington, DC 20510
(202) 224-4744

☐ One Gateway Center Suite 1510
Newark, New Jersey 07102
(201) 645-3030

☐ Three Cooper Plaza
Suite 408 South
Camden, New Jersey 08103
(609) 757-5353

☐ Court Plaza North
25 Main Street
Hackensack, New Jersey 07601
(201) 342-0936

Exhibit MM

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278

JAN . 8 1988

Honorable Frank R. Lautenberg
Chairman, Committee on Environment and Public Works
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

Your letter of November 30, 1987 concerning PCB contamination at Texas Eastern Gas Pipeline Company's Hanover compressor station has been referred to my attention. We have been investigating contamination problems at the various Texas Eastern sites located in Region II since February 1987. Soil samples from the West Amwell and Linden sites and drinking water samples from nearby wells in West Amwell were analyzed for PCB's by EPA in February and March 1987. Preliminary assessments of contamination at two other pipeline sites in Hanover, NJ and Staten Island, NY were also performed in March of 1987.

As a follow up to these preliminary assessments, site investigations were performed at these four sites this summmer. A comprehensive site inspection was performed at the Texas Eastern Hanover site by EPA's contractor Field Investigation Team (NUS Corporation) on August 14, 1987. The results of sample analysis were received by EPA from the contract laboratory on November 17, 1987. PCB's were found in soil on site ranging from estimated concentrations of 1.7 parts per million (ppm) to 350 ppm. PCB's were also found in stream sediments in two site drainage ditches at the estimated concentrations of 3100 ppm and 5900 ppm. (data enclosed)

EPA has evaluated the effects that these concentrations of PCB's may have on health and the environment. The Hanover site is fenced, and therefore, risk to the general public by direct contact or inhalation exposure is minimal. Further sampling of the general area is needed to determine if the contaminants have been transported off Texas Eastern's property, and if so, whether this poses any potential risks to human health and the environment. Re-sampling of the Hanover site to further characterize the extent of PCB contamination on site, and to determine if the contaminants have migrated off site, was initiated December 17, 1987.

According to the Agreement in Principle between EPA and Texas Eastern, the Hanover site will be included in the final Consent Decree that is still being negotiated. The Hanover station is one of the the 89 sites to be included in the Consent Decree. The terms of the Consent Decree will insure that the Hanover site and other contaminated Texas Eastern sites in the New York/New Jersey area will be properly remediated.

EPA's contractors also performed site inspections at three other Texas Eastern sites located in Region II during the week of August 10-14, 1987. The analytical results for samples taken at Linden and West Amwell, NJ, and Staten Island, NY are enclosed. West Amwell soils were found to be contaminated with PCB's ranging in value from 0.35 ppm to an estimated value of 1800 ppm. At the Linden site, soils were found to be contaminated with PCB's at concentrations ranging from 1.9 ppm to 13 ppm. One sample showed a higher concentration of PCB's, but this value had to be disregarded because of quality control problems at the laboratory. At the Staten Island site five of the six samples collected showed no PCB contamination; however, one of the six samples contained PCB's. This value also had to be disregarded because of quality control problems in the laboratory. Both the Staten Island site and the Linden site will be re-sampled in early January to clear up this ambiguity.

My staff will be notifying appropriate elected officials of the results of our inspections at these sites shortly. They will also continue to be available to answer questions and concerns about pipeline contamination.

I share your concern for these Texas Eastern sites, and I have instructed my staff to provide your office with the information that results from our continued monitoring at these sites.

Sincerely,

Christopher J. Daggett

Christopher J. Daggett
Regional Administrator

cc: Richard T. Dewling
Commissioner, New Jersey
Department of Environmental Protection

Thomas C. Jorling
Commissioner, New York State
Department of Environmental Conservation

Exhibit NN

TEXAS
EASTERN
Gas Pipeline Company
A DIVISION OF TEXAS EASTERN TRANSMISSION CORPORATION

DERRILL CODY
CHAIRMAN AND
CHIEF EXECUTIVE OFFICER

December 23, 1987

Senator Frank R. Lautenberg
United States Senate
Washington, D.C. 20510

Dear Senator Lautenberg:

Thank you for your letter of November 30, 1987, concerning results of testing for PCB contamination at Texas Eastern Gas Pipeline Company properties in Hanover, NJ, and Staten Island, NY. We are pleased to provide the following information concerning the testing at those properties.

Hanover, NJ

Testing at the Hanover Compressor Station was initiated by the US Environmental Protection Agency (EPA) as part of a program to assess Texas Eastern stations nationwide. The sampling was conducted on August 14, 1987, by NUS Corporation, on behalf of EPA Region II. As is Texas Eastern's policy, we cooperated with the sampling effort and also obtained duplicate samples. We received the results of our analysis of those samples in late September and informed both the State of New Jersey and EPA Region II of our findings by telephone. On October 5, 1987 we transmitted the results to the State and to EPA by letter. In the letter to EPA Region II, we requested results of the analysis performed by the EPA contractor. To date, we have not received these results. Upon receipt of the EPA results, Texas Eastern will incorporate the data into the site characterization.

In the transmittals of October 5, we submitted a sampling plan for the Hanover Station developed by our consultant, Roy F. Weston, Inc. The purpose of the follow-up sampling at the Hanover Station was to assess the extent of PCB contamination in the drainage paths around the Station. We invited the State and EPA to comment on the follow-up sampling plan and to participate in the sampling effort.

Neither the State nor EPA commented on the plan nor accepted our invitation to participate in the sampling. Our consultant proceeded with the follow-up sampling at the Station on October 28, 1987. The report on that sampling effort is being prepared.

P.O. BOX 2521 HOUSTON, TEXAS 77252-2521 (713) 759-3131 TELEX 775459 CABLE TETCO HOU

On December 17, the EPA initiated its own follow-up sampling program at the Hanover Station. The program involves the gathering of soil and sediment samples, primarily from offsite locations. Following our policy, we again have cooperated with the EPA and are obtaining duplicate samples.

Texas Eastern has performed a preliminary review of the Station and has identified the primary source of contamination to be a drain line from each of the compressor turbine units. Each drain line has been modified to prevent further releases. Other possible sources of contamination are still under review but at this time would appear to be confined to minor drippings from valves, etc. To the best of our knowledge, no earthen pits have ever been constructed at the Hanover Station.

As you are aware, Texas Eastern is presently negotiating the terms of a Consent Decree with EPA to address the entire Texas Eastern system. As part of that Consent Decree, Texas Eastern is committed to characterization and remediation of not only Hanover, but also the other New Jersey stations, Lambertville and Linden.

Staten Island, NY

The Texas Eastern facility on Staten Island, New York, does not house compressor units. The tank located on the facility handles liquids that are removed from the natural gas stream prior to entering local distribution lines. The low-level soil contamination (26 ppm PCB) detected at the Station was found within the berm that surrounds this tank. Samples taken outside of the berm did not indicate contamination by PCB or any other compound. Analytical results of our samples were transmitted to the State of New York and EPA Region II on October 5, 1987.

Please contact me if further information is needed.

Sincerely yours,

Derrill Cody

Derrill Cody

DC/mft